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PLANS

OF

BUILDINGS PUBLIC AND PRIVATE,

INCLUDING

The New Custom-House, London,

&c. &c. &c.

PLANS,

ELEVATIONS, AND SECTIONS,

OF

Buildings Public and Private,

EXECUTED IN

VARIOUS PARTS OF ENGLAND, &c

INCLUDING THE

NEW CUSTOM-HOUSE, LONDON,

WITH

PLANS, DETAILS, AND DESCRIPTIONS.

ENGRAVED ON FIFTY-NINE PLATES.

By DAVID LAING, F.S.A.

ARCHITECT AND SURVEYOR TO THE BOARD OF CUSTOMS, &c.

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M DCCC XVIII.

TO

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GEORGE, PRINCE OF WALES,

&c. &c. &c.

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A GENEROUS PATRON OF THE FINE ARTS,

AND

PROTECTOR OF THE LIBERAL AND USEFUL SCIENCES,

THIS WORK

IS,

BY HIS GRACIOUS COMMAND,

MOST RESPECTFULLY DEDICATED,

BY

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VERY FAITHFUL SERVANT AND SUBJECT,

DAVID LAING.

Hatton Garden,
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INTRODUCTION.

The objects of Architecture, as an art, are accommodation and elegance: by the first, it essentially contributes to the gratification of individuals, and to the general enjoyments of human life; by the latter it contributes to form the character, and to establish the dignity of a people, not among contemporaries only, but to posterity. In its more splendid branches, Architecture has been cultivated, extensively, and successfully, only by great nations; and universal consent unequivocally places among the most striking demonstrations of their greatness, such edifices as display superiority of taste, or become standard examples of magnificence. Desire of distinction is natural to the human mind, and has ever been encouraged by the judicious; nor has commendation been withheld from the spirit of rivalship, on this subject, though on others it has sometimes been thought culpable, and has often proved disastrous. In its more exalted instances, Architecture may be considered as announcing the state of many other arts, which are naturally subservient to it: though assistants only, they must have attained a certain degree of maturity, or their services would be ineffectual. The foundation of the art must be extensively laid in accurate and well-studied theory in every branch; while the practical part demands the efficient combination of dexterity, intelligence, and experience. In fact, neither of the sister arts requires the concentration of higher talents; nor are the productions of either equally open to public opinion and censure.

A long course of years (it might be said of ages, the duration of nations rather than of a life) is necessary to advance Architecture to that perfection of which it is susceptible; and whoever makes an additional step towards that point, though he may not have accomplished all he meditated, or all on which his anxious wishes dwelt, may, nevertheless, aspire to public approbation for having contributed according to his opportunities, to that distinction which it is the object of his art to confer.

The indulgence of a candid public will readily be granted to such attempts. Those who are best qualified to judge, will not pronounce determinately on what at first sight appear to be deficiencies; nor, till after satisfactory enquiry on the nature and intent of a building, on the purposes to be invariably kept in view by the artist charged with its construction, and on the advantages and disadvantages, in every direction, over which he could or could not exercise control and ordination. After these particulars have been considered, a claim to applause will be sanctioned by the judicious, not seldom beyond the extent to which it is modestly made.

Of the necessity for accommodation conducted with the most strict and accurate attention, there can be no instance more striking than that which forms the principal subject of the present volume. No private building can, in this respect, compare with it; nor can any private building occasion any proportion of that anxiety, which has been, and which could not but be, inseparable from a work of such magnitude, importance, and publicity.

The nature and intention of the Custom House for the port of London, is not the accommodation of nobility, nor of royalty, nor of a Senate. It is not a palace; it is not the hall of a Legislative Assembly; nor of a Bank, a privileged seat of wealth; nor of a National Treasury, understood to be the office for concentration and distribution of the public receipts and expenditures. It is a national object, in some degree a kind of epitome of all these; but not precisely coincident with either.

Neither are the duties of the Custom House for the port of London, restricted to that port solely: it is the head and principal of all others. It issues commands to them; it receives reports from them; it arranges and preserves these documents; and forms general conclusions from their representations, which, in themselves, can be but local and partial.

Of all buildings, a public building of this description, is seen by the greatest number of foreigners; and seen, in the first instance, by such as arrive from distant parts, charged with the care of those numerous and valuable cargoes which every tide bears to anchorage on the bosom of the Thames. The advantages of a favourable appearance on introduction, are acknowledged and allowed by all; but they are not to be secured by suffering the eye of strangers to rest on a mean or unsightly structure. The first impression received from the official department of mercantile affairs, should not be that of contempt; that arising from a suspicion, or a persuasion of inability to do better, or of excessive economy and parsimony in the nation, of whose concerns it is the index. Neither ought it to be forgot, that the respectability attached to the character of a merchant of London, supposed to attend personally, in transacting his business here, (and not seldom engaged, by occasions arising, to verify this supposition) demands an accommodation becoming the genius of a commercial nation; and far removed from the rudeness of unsettled times, and barbarous ages.

That London has, from the earliest antiquity, been a port of general resort, may be gathered from various indications, greatly obscured indeed by lapse of ages and imperfect information, but not totally obliterated. Those antiquaries who derive its name from words in the ancient British language signifying, "the port of ships," or "the station for ships," cannot but admit this proposition; which is strongly supported by the observation of the intelligent Tacitus,[a] the first writer who notices the port under the appellation *Londinium;* he describes it as being *copia negotiaturum, et comeatu maximè celebris,* illustrious for the vast number of merchants who resorted to it, for its widely extended commerce, and for the abundance of every commodity that it could supply. With this we may connect the testimony of the venerable Bede, though some centuries later, who calls London "a mart town of many nations, which repaired thither by sea and by land."

But if London had been founded only fourteen or fifteen years, in the days of Tacitus, it

[a] *Annal.* lib. xiv. cap. 33. A.D. 64.

could not possibly have arrived so suddenly at this wonderful degree of wealth and power. It must have been long before celebrated as a mart for valuable commodities, which were objects of attraction to dealers who resorted thither for the purpose of exchanging their importations for the more valuable productions of this island, especially of its interior districts. This concentration of British commodities in London, can alone account for the remarkable fact, that of the fifteen roads marked in Britain by the Itinerary of Antoninus, no fewer than seven originate, or terminate in London: and these communications, though adopted, and perhaps somewhat enlarged by the Romans, were certainly coincident with those which they found already formed, and in use, ages before their power invaded the island.

That the Phenicians traded to Britain for tin, and for other metals, (but for tin especially which they could obtain from no other country); that they visited the island in the remotest ages, and considered their trade with it, as deserving extraordinary care, to ensure their monopoly, are facts attested by the best authorities; but it is not equally credible, though some have supposed it, that this trade centred in London. It is more probable, that London maintained an intercourse with the Continent opposite to the mouth of the Thames; and rather with the northern than with the southern countries of Europe. It was, no doubt, from the north, by means of travelling merchants, that the original Britons received those ornaments which the researches of the curious have discovered in their sepulchres. Their own shores produced no amber; their numerous necklaces of amber beads, must therefore have been foreign: they had no supply of gold from native mines; gold studs and gold clasps therefore, with their bracelets for the arms, the wrists, and the waist, were not of domestic fabrication; but were undoubtedly obtained in exchange from strangers who imported them.

Cæsar hints at his finding British merchants in Gaul, previous to his first attempt on the island; and from these, he confesses, their countrymen at home received intimation of his projected invasion.

After the Romans had obtained a permanent establishment, the first notice that conveys any definitive idea of the extent of British commerce, relates to the export of no less than eight hundred ship-loads of corn, in the space of one year,[a] from the port of London, only: but whether these freights paid duty, or in what shape, and to what amount, no authority exists for guiding our opinion. Neither is it certain whether vessels passing to London were not stopped at the mouth of the Thames, and there paid their duties, as those which supplied Rome with merchandize were stopped at Ostia, the mouth of the Tiber.[b]

The original London was probably a strong enclosure of timber fortifications, surrounded by a rampart of earth, into which were worked for its support, trees of huge dimensions, and heavy balks of timber; the whole forming a fastness. For the advantage of strength, it extended along the shore of the Thames, in front, from the river Fleet westward, (then navigable, and perhaps of considerable breadth) to Wall-brook eastward, another stream, affording an advantageous opportunity of defence, by constructions along its bank. Antiquaries have supposed that this brook

[a] A. D. 359.

[b] It is certain that the river Thames was anciently much wider than it is at present. The British city wall stood considerably within the present banks, and on the brow of the rising Strand; while St. George's Fields, and the whole of Southwark, were marshes covered by the tide. The entrance of the Thames for vessels coming from the Continent was at Lunden-wic, not far from the present Sandwich; and the vessels proceeded along an arm of the sea, where are now meadows, between the Isle of Thanet and the county of Kent. *Bede Hist. Eccl.* i. 25. *Annals of St. Augustine's Monastery, a Latin M.S. in Trinity Library, Cambridge. See Archdeacon Batteley's Antiq. of Richborough.*

took its name from *passing through the wall* of the city, which was pierced for this purpose in the upper part, near Moorfields; but much more probably it was named from its *running along in front of the wall*, in the lower part, (where it still retains its name) to *Dour-Gate*, i.e. *Water-Gate*, which continues to be called *Dowgate*, and has a wharf, and a place for landing at. In the most convenient part of the river front of this ancient fastness, was the main and most ancient port, subsequently called Queen-hithe.

It should seem therefore, that the eastern part of London comprising the space from Wall-brook to the Tower, was an accession; extremely ancient no doubt, but yet an accession to the original city. It is possible, that this addition was built and fortified by the British king, Lud, and that it became the chief seat of the Roman settlers, and others, friends to the Romans; in consequence of which it was treated with uncommon severity, plundered and burnt by Boadicea.[a]

This supposition is greatly confirmed by the names of places and streets still remaining, and preserving memorials of ancient distinction; as East-cheap, i.e. the *East* market, implying the previous existence of a market to the west, known without any prefix to be the prior *Cheap;* still commemorated in the older city, in Cheap-side, "the side of the market." The same inference is supported by the names, in the second city, of Grass-street, whence Grass-church, and now Grace-church-street; of Fen-street, (implying a moorish or boggy soil) whence Fen-church, and now Fen-church-street. The *Old* 'Change was certainly in the more ancient part, i.e. in the original city; and the street that is called to this day, *Old* Fish-street, which also is in the original city, denotes the first market for that commodity: whereas the new fish market was on Fish-street, whence Fish-street-hill: this market easily derived its supplies from Belin's-gate, which was the port for this eastern part of the city; and became by degrees, a powerful and prevailing rival to the old port. The chief magistrate of London exercised jurisdiction over the whole; he was by king Alfred appointed to be the Port-Reeve, or superior public officer of the port.

Belin's-gate has had the good fortune to be mentioned as a port for receiving dues on the part of the king, in earlier documents than have come down to us respecting Queen-hithe; for it is admitted that in the year 975, king Ethelred, being then at Wantage, issued directions relating to the customs to be taken of ships which used that station; and it is further said, that Canute[b] the Dane enacted rates, or customs, which were to be paid on goods landed at the wharf at Belin's-gate.

Nevertheless, Queen-hithe long maintained its prerogative. King Henry III. in the ninth year of his reign,[c] commanded the constables of his Tower of London, to arrest the ships of the Cinque Ports, on the river Thames, and to compel them to bring their corn to no other place but to the Queen's Hithe only. In the eleventh year of his reign,[d] he charged the said constable to distrain all fish offered for sale (by vessels) in any other place than the Queen's Hithe. And again in the twenty-eighth year of his reign[e] an inquisition was taken before William of York, the provost of Beverley, Henry of Bath, and Hierom of Caxton, at that time Justices Itinerant, sitting in the Tower of London, concerning the customs observed at Queen-hithe in the days of his father king John,[f] and of those also which were "*old customs of other times;*" they were also to inquire what "*old customs* had been changed;" and on this occasion, it should appear that the taxes and payments for all things coming thither, were found and rated "according to the old order;" not corn and fish only, but all other things.

[a] A. D. 70 [b] Died 1035. [c] A. D. 1225. [d] A. D. 1227. [e] A. D. 1244. [f] Died 1216.

Nor was this inquisition an empty form; for afterwards the bailiffs of Queen-hithe complaining that fourteen foreign ships laden with fish had arrived at Belin's-gate, which should have arrived at their Hithe, the king caused the ships to be seized; and such vessels were in future, subjected to a fine of forty shillings, in case of disobedience.

The tolls taken at this time, and most probably from the very first, were rather in kind, than in money; and therefore, though called customs, or *old customs*, they were properly *tolls*, or part of the commodity taken, by which the privilege of sale was purchased for the remainder. So we find that in this year, the twenty-eighth of Henry III., the toll taken from salmon, was two fish out of the hundred, to the Queen's farm, or profit; but if the owner landed them in the Queen's *Soke*, or the district adjoining to the Queen's Hithe, then the toll was one of the best fish and one middling. The toll on white herring was, one hundred fish from the whole lading.[a]

That there was a timber bridge from London to Southwark long before a bridge of stone was contemplated, is not only very credible in itself, but appears from historical evidence. A bridge was however at length constructed of stone, and was finished about the year 1209. By this more solid erection, the difficulty of approaching Queen-hithe by vessels coming from sea, was greatly increased; whence arose the necessity for the repeated injunctions and inquisitions already noticed. Still, however, Queen-hithe continued to rest on its ancient preeminence; and in the third year of Edward IV.,[b] it was ordained, that if one vessel only came up to London, then it should discharge its lading at Queen-hithe; if two vessels came up, one should discharge at Queen-hithe and one at Belin's-gate; but if three vessels came up, two should resort to Queen-hithe, and one to Belin's-gate. These regulations afford no slight arguments that Belin's-gate was the less ancient port; but it gradually became the most convenient for foreign ships; especially after the erection of the bridge, which by the imperfection of its machinery, or the reluctance of those who worked it, became an invincible obstacle to masted vessels. In consequence of this immoveable impediment, Queen-hithe gradually lost its importance, and will scarcely obtain further notice in this historical abstract; but it may be proper, before the ancient port entirely disappears, to insert the comparative profit of these establishments, with those further profits derived by the king from other incidents in the metropolis, in the middle of the thirteenth century, or about A.D. 1246, when the city of London purchased from Richard, Earl of Cornwall, brother of king Henry III., the fee-farm of Queen-hithe, with all its rights, customs, and privileges.

	£.	s.	d.
Amount of Tonnages (the king's Weigh House) and petty standages	97	13	11
Amount of customs on foreign merchandizes, with the issue of divers passages	75	6	10
Metage of corn, and customs at Belin's-gate	5	18	7
Customs on fish, &c. brought to London-Bridge-street	7	0	2
The issue of the field and bars at Smithfield	4	7	6
Toll at the city gates, and duties on the Thames westward of the bridge	8	13	2
Stallage duties from the markets of West-Cheap, Grass-Church, and Wool-Chirche-hawe, with the annual Scotage of the Butchers of London	42	0	0
Amount of the produce of Queen Hithe	17	9	2
Chattels of foreigners, forfeited for trading in the city, contrary to the laws and customs thereof	10	11	0
Places and perquisites within the city	86	5	9
Produce of the Waidar.. and Ambani of Corbye and Neele, merchants of those towns	9	6	8
Total	364	13	2

These were half-yearly payments; and from this account it appears, that while Belin's-gate produced no more than £5. 18*s.* 7*d.*, Queen-hithe produced the sum of £17. 9*s.* 2*d.*; about three times the amount of the former.

[a] Lib. Horn. fol. 342. [b] A.D. 1464.

What special advantages induced foreign merchants to resort to London, it is not easy to say. They certainly found, among other things, the granaries well furnished with corn; for William of Malmsbury informs us, that in the reign of king John, the London dealers had extensive stores of grain, whence all parts of the kingdom were supplied. Some writers affirm, that foreign merchants were allowed to expose their wares on ship-board only, till about A.D. 1218. They gradually, however, obtained greater privileges; of which the charter of Edward I. granted in 1302, affords ample evidence

The king stipulates, that "The merchants of Almaine, France, Spain, Portugal, Navarre, Lombardy, Florence, Provence, Catalonia, the duchy of Aquitaine, Toulouse, Flanders, Brabant, and of all other foreign parts who shall come to traffic in England, shall and may safely come with their merchandize into the king's cities, towns, and ports, and sell the same by wholesale only, as well to natives as to foreigners. And the merchandize called Merceries, [probably small wares, toys, haberdashery, &c.] as also spices, they may sell by retail. They may also carry beyond sea, the goods they may want in England, paying the usual customs; excepting wines, which being once imported, shall not be exported, without the king's special licence." The customs paid by these foreign merchants, were, "for every ton of wine imported over and above the old customs, two shillings; for every sack of wool exported, forty pence, over and above the old customs of half a mark; the like for three hundred wool-fells; for every piece of scarlet cloth dyed in grain, two shillings; for cloth dyed in which grain was mixed, one shilling and sixpence; and for cloth dyed without grain, twelvepence; the like sum for every quintal of wax. They shall likewise pay threepence per pound, *ad valorem*, for such merchandize imported, and also when re-exported, as cannot well be reduced to a certain custom, in the above manner; such as silks, sarcenets, lawns, corn, horses and other live cattle; with many other kinds, over and above all the old customs on such sort of merchandize."

This document presents a list of such foreign merchants as frequented the port of London, in their own ships, no doubt; but it does not stipulate for any reciprocity of favour to be shewn to English merchants, when frequenting the same foreign ports and kingdoms, in English-built vessels: a strong symptom that the commercial navy of England was but feeble at that time. Neither does this charter determine any place in the city of London, at which, exclusively, these customs should be paid, and received: and still less does it hint at any public edifice appointed for that purpose.

From this time, Belin's-gate appears to have gradually acquired and maintained the superiority as a place of import and export, notwithstanding all edicts to the contrary. And it may be proper here to notice, that in the time of king Edward III.[a] the ancient customs of Belin's gate were to this amount; "Every great ship landing there, paid for standage, two-pence; every little ship with Orelockes (half-decks, probably) one penny; the lesser boat, then called a Battle, paid one half-penny; on two quarters of corn measured, the king was paid one farthing (q. *fourthing*, the fourth part of a penny); on a coomb of corn, one penny; on every weight *(cwt.)* going out of the city, a half-penny; on two quarters of sea-coal, measured, a farthing; on every ton of ale going beyond sea, by merchants, strangers, four-pence; on every thousand of herrings, one farthing: with exception to the franchizes of the citizens of London," &c.

It is obvious to remark, that in this report of the customs imposed for the king's use at Belin's-

[a] Circ. 1350.

gate, the toll is not taken in kind, but is commuted for a certain payment in money. This must have been much more convenient to foreign merchants; and probably had a powerful influence in causing them to prefer Belin's-gate as their port of resort.

During the bloody contests between the houses of Lancaster and York, little real attention could be paid to commerce; and from A.D. 1399, the accession of Henry IV. to the proclamation of Henry VII. in 1485, the waste of property and of people was enormous. Yet Edward III. in 1331, had invited and encouraged the talents of the Walloon manufacturers; and shortly after (A.D. 1337) it was enacted, that no wool should be exported; that no English subject should wear any but English cloth; that no clothes made beyond sea should be imported; and that foreign cloth-workers might settle in the king's dominions, with the enjoyment of certain franchizes. From this period, the English, who had been little more than shepherds and wool-sellers, became manufacturers of woollens; villainage received a fatal blow; and before 1485, woollen manufacturers, with their attendant artificers in innumerable branches, were established, or represented by their agents, in every county in England. The natural consequence of this change of circumstances, was a demand for national shipping; and in 1381, the principle of the Act of Navigation was recognized in a statute,[a] declaring "That none of the king's subjects shall carry forth, or bring in merchandizes, but only in ships of the king's allegiance." The permission to export corn, allowed not long afterwards, to all the king's subjects, could not but occasion a great additional employment of English vessels, in the conveyance of so bulky a commodity.

It is not likely that all the corn exported from the shores of the river Thames, should be brought to London for that purpose. It might be shipped with sufficient convenience from numerous creeks and strands between Belin's-gate and the sea; the returns also, consisting of imports from abroad, brought in the same ships, would naturally, in many cases, be landed at the residence of their owners: and provided the king's customs were duly paid, no damage would be inferred to the public treasury. But though this might be convenient enough to private individuals, yet it was found extremely inconvenient to the public authorities; for the collection of toll, or of dues, or customs at different places, on commodities coming from abroad, could not but be attended with greater trouble, expense, loss, and exposure to smuggling, (to say nothing of the officers' ignorance of the value of such commodities) than if the purpose had been accomplished at one place. Nevertheless this state of things continued till the accession of Elizabeth, in whose reign it became one of the first objects of consideration. In her first year the legislature passed an act empowering commissioners to regulate this subject.[b]

[a] 5 Rich. II. chap. 3. 6 Rich. II. chap. 8. 17 Rich. II. chap. 7.

[b] Anno 1559, the Commissioners ordered what goods should be landed at Billingsgate, the Three Cranes, the Bridge House, the Still Yard, &c.

Appointed "the xxvii,th day of Auguste, in the first yeare of the Rayne of our Soverayne Ladye Elizabeth, by the grace of God, Quene of Englande, France, and Irelande, Defendour of the Faithe, &c. Old Wool-key, New Wool-key, Galley-key, Andro Morris key, Ambrose Thurstan's key, Rauff's-key, Cock's-key, Gibson's-key, Haddock's-key, Dyce-key, Bear-key, Sommer's-key, Buttolph's-wharf, Sabb's key, Young's-key, Crown-key, Smart's-key, Fresh wharf, and Gaunt's-key, to be general lading and discharging places for all manner of merchandizes.

"And for the better answering of the Revenues of the Quene's Majesty's Customs and Subsidies in the Porte aforesaide, the saide Commissioners have ordered and farther appointed, that from and after the Feast of Easter next coming, there shall no Stranger, or Strangers borne, whether he or they be or shal be made Denizens or not, as well inhabit, or be commorant in, at, or upon any of the saide Wharfs or Keys, or any parte of them, the *Still-yard* except; and that every Tenaunt or Keeper of every of the saide Keys, Wharfes, and Stayers, shall from time to time be bound in suche some or somes of money to the Quene's Highnes use, her heirs and successors, as by the Treasurer of *England*, or other officers of the Quene's Majesty's Courte of *The'eschequor*, for the time being, shall be thought good and convenient, upon condition that there shal be no Goods, whereof Custome or Subsidy is or shal be due, laide on lande at their Keys, Wharfes, and Stayers, or shipped or put from thence upon the water to be carried over the seas by way of merchandizes, before the said goods be enter'd in the Quene's Custome-books in the said porte; and also to be laden in the presence of the saide searcher, or of one of his servants, for the time being, and discharged and laide on land in the presence of one of the wayters for the time being; and other articles to be put in the saide condition, as to the saide Treasorer and officers hereafter from time to time shall seem good, mete, and convenient, as the case shall require. And that all Creeks, Wharfes, Keyes, lading and discharging places, in *Gravesend, Woolwich, Barking, Greenwich, Deptford, Blackwall,*

Whether any sensible increase of the commerce and shipping of the port of London had suggested the necessity of these regulations, or whether they originated in a wise and happy foresight of consequences likely to ensue from advantages intended to be taken of discoveries then in the progress of being made (for this was the age of discoveries) history does not inform us. It may be conjectured, with great probability, that the example of foreign European powers, of which Spain and Portugal may be quoted as eminent instances, excited the emulation of Elizabeth's ministers; and it must be allowed, that no better plan could be devised to secure the proceeds of an increasing revenue, than that established by authority, on this occasion. By the number and situation of places excluded from the reception of custom duties on such commercial articles and adventures as properly belonged to the port of London, some notion may be formed of the inconvenience to which the public receipts would have been subjected had the law continued to allow the cargoes, or any part of the cargoes, of India ships for instance, to have been landed before they arrived at safe and legal moorings. It will be recollected, that the extent of commerce here contemplated, was a novelty to the kingdom; and this is particularly applicable to all importations from India: they were understood to be extremely valuable in themselves; but their value, and the temptations annexed, were heightened beyond what we can now apprehend, by their rarity, or singularity, and by public report, never deficient in magnifying any thing uncommon or unknown. Nor should it be forgot, that the first voyages to India returned to those interested in their adventures, profits to the amount of nearly one hundred per cent. and some to nearly two hundred and fifty per cent. Hence the Company was understood to realize incredible treasures, by which the proprietors became objects of general envy, of proportionate emulation, and subsequently of open and vigorous rivalship; first by associated interlopers, and afterwards by more orderly bodies, which at length coalesced under the original charter.

Whatever were the cause, the event informs us, that the expense and trouble of collecting the Custom-house duties, induced the Queen to farm them in the year 1590 to Mr. Thomas Smith, for the nett sum of £20,000; which, no doubt, was thought at the time a favourable, and even profitable agreement for Her Majesty's service. But circumstances disclosed a secret that gave another colour to the affair. Under the management of this individual, the Customs were found to realize upwards of £30,000; and the surplus was deemed by the public officers to be a subtraction from the Queen's income of more than £10,000 per ann. Whether this difference were a real loss to the public treasury compared with the receipts of former years, or whether it were the creation of that jealousy and rigour in a speculative individual, which led to improvements in the mode of collecting the revenue, (improvements which the public treasury, as such, would never have substantiated) or whether it were the natural consequence of progressively increasing commerce, with the Customs payable on a greater variety of articles, and to a greater amount, can now be nothing more than conjecture. The East India Company was instituted in the year 1600, but the English merchants had presented a memorial to Queen Elizabeth, on the subject of a trade to India, in 1589, and in 1596 that sovereign had granted letters of address to

Limehouse, Ratcliffe, Wapping, St. Katharines, Tower-Hill, Rotherhithe, Southwark, London-Bridge, and every of them, and all and singular Keyes, Wharfes, and other places within the city of London and the suburbs of the same, or elsewhere within the saide porte of London, (the several Keyes, Wharfes, Stayers, and places before limited and appointed only except) shall be from henceforth no more used as landing or discharging places for merchandizes, but be utterly debarred and abolished from the same for ever, by force of the said statute, and other the Premisses.

WINCHESTER. RICHARD SAKEVILL. WA. MILDEMAY."

The Three Cranes were appointed for landing Wines and Oils, &c. and for shipping Woollen Cloths of the price of SIX pounds or under the Cloth. Beer might be shipped any where. The Bridge House was appointed for landing corn.

"The Wharf, Key and Stairs of the Still-yard appointed to be a landing and discharging place of all manner of merchandizes, appertaining to any merchant stranger free of the said house of the Still-yard, commonly called *Guildhalda Theutonicorum,* for the time being, and for no other person or persons."

Oriental potentates in favour of adventurers, her subjects. These extensions of commerce, as was to be expected, greatly augmented the Customs; for we find, that in the tenth year of king James,[a] the receipts in the port of London, were £109,572. 18*s.* 4*d.*; very nearly three times the sum collected in all the other ports of England.

It will readily be supposed, that as the amount of the Customs increased, the importance of preparing a convenient building for their accurate and orderly reception, would become more impressive on the mind of government; while the expense incurred by such erection would be proportionately less considerable: it would also be less felt; and the application of the money would be more than ever warrantable. In proportion also to the number of ships, of ships' officers, owners, &c. which necessarily resorted to the port of London, would be the inconvenience and danger of delay in transacting business: a day lost at the Custom-house, might prove the postponement of a voyage, by the loss of a favourable wind; and such a misfortune might eventually prove irretrievable, in the progress of intended adventures.

No building sufficiently conspicuous to be marked without hesitation as the Custom-house, appears in any map of London representing the city as it was in the time of Queen Elizabeth, or of king James; though a public office for that purpose must have existed, and must for convenience have been situated on or near the bank of the river, and in all probability, as close as possible to Belin's-gate. Neither does Stowe, or his continuator, describe a Custom-house as a distinct and distinguishable building, or as a public and royal establishment. Yet from its importance, its nature, and its inevitable notoriety, such a structure, even if little respectable, could not possibly have escaped the diligence of that laborious antiquary.

Subsequently however to the time of Stowe, there certainly was an official structure appropriated to this duty; for we find it noticed as having been involved in the general conflagration that levelled nearly the whole of the ancient city with the ground, A.D. 1666. When the desolated metropolis rose like a phœnix from its ashes, Charles II. took advantage of the opportunity to erect as a Custom-house, a building that might have some pretensions to superiority over those which claimed no higher character than that of warehouses to the wharfs and quays about it. It was therefore rebuilt at the expense of £10,000: and to render it more conspicuous to the public eye, the site was enlarged by the addition of a house and grounds, then appertaining to Sir Anthony Cope, of Hanwell; but granted by him to the king, at a rent of £274 per annum.

Whatever were the conveniences of this structure as a public office for dispatch of business, it was not proof against the all-pervading effects of fire: it was burnt down in the year 1718.

The business of the port continuing to increase, additional rooms and warehouses, with apartments for proper officers, were provided in the greatly enlarged edifice that succeeded; but even this, before the end of the century, and especially in the beginning of the present century, was found to be on too contracted and inconvenient a scale. The merchants repeatedly complained of postponements occasioned by want of accommodation for sufficient numbers of Custom-house clerks and officers; while not seldom the crowd of applicants crossing each other on business, became an additional cause of increased delay, and inconvenience.

[a] A.D. 1613.

To the river front of this Custom House were annexed two mighty wings, each presenting a passage colonnade of the Tuscan order; the upper story being relieved with Ionic pilasters and pediments. The whole external length of the structure was one hundred and eighty-nine feet; and the centre was in depth twenty-nine feet. But there was in this building an appropriate feature, called the Long Room, which extended nearly the whole length of the centre; being in length one hundred and twenty-seven feet, twenty-nine feet in width, and twenty-four feet in height. It afforded accommodation to a considerable number of clerks attached to various departments, and was originally, and for some years, honoured with the personal superintendance of the Commissioners themselves. Unfortunately, however, this building was not sufficiently guarded against fire; to which element it fell a prey in the course of a few hours, on the 12th of February 1814.[a]

In proportion to the wonderfully increased accumulation of business, was the dismay and confusion occasioned throughout the city of London by this disaster. The warehouses, which

[a] On Saturday morning, Feb. 12, a quarter past six o'clock, a dreadful fire broke out in the Custom-house, in Lower Thames-street, which burnt with great fury, and in a few hours destroyed that vast pile of building, with all the valuable property, including books and papers, deposited therein. The fire is supposed to have originated in a flue belonging to one of the offices in the eastern wing of the building, adjoining a closet attached to the apartments of Miss Kelly, the house-keeper. On the first alarm, her brother, Colonel Kelly (late of the Guards), who occasionally slept there, hurried up to his sister, and found her in such a senseless state from the fright, that it was with extreme difficulty he could drag her out, almost naked. As the flames were at this time beginning to rage with great fury, he was much scorched in this affectionate effort, and was obliged to be conveyed in a blanket to the Rev. Mr. White's on Tower-hill, where shelter and assistance had been afforded to his sister. The engines arrived soon after seven o'clock. About eight, the flames had obtained so great an ascendancy, that all attempts to save the Custom-house were abandoned. The exertions of the firemen and others employed, were then directed to the warehouses and other buildings on each side of the street; when a report was circulated that many barrels of gunpowder were deposited in the vaults, and that consequently an explosion might soon be expected: this had nearly a magical effect: all withdrew to a distance—as well firemen as spectators. At half-past nine this report was confirmed by the explosion of about two barrels of gunpowder: the shock was tremendous; it was distinctly felt on the Royal Exchange; and by gentlemen coming to London by the Whitechapel-road, it was felt four miles in that direction. Many of the buckets were carried as far as Billingsgate. A bundle of singed debentures is said to have been picked up by a gentleman at as great a distance from the scene of destruction as Spital-square.

The concussion spread ruin and devastation around the neighbourhood, breaking the windows in Cannon-street, Eastcheap, and the adjoining streets; and exciting in the breasts of the inhabitants apprehensions of the complete destruction of that quarter of the city.

The flames soon communicated to the houses over against the Custom-house, including the whole of the tenements between Beer-street, and Water-lane, from which it required the utmost activity of the inmates to escape, not with their property, but with their lives; an attempt which, in many instances, was attended with great danger and distress. Numbers of individuals were severely scorched; while others in a state little better than nudity, were seen rushing in search of shelter. Among the more miraculous escapes, were those of the Housekeeper and family, who, but for the assistance of a fire-ladder, and the prompt exertions of a fireman, must have perished in the flames. Most of the servants fled to the top of the house, from which they were taken down by ladders; but it is to be deplored, that an orphan girl whom Miss Kelly had brought up in her service, with another whom she was also about to provide for in the same manner, were not so fortunate.

At ten o'clock, the whole of the Custom-house and the adjoining warehouses were completely reduced to ashes; and the food of the flames on that side being exhausted, the attention of the firemen and their assistants was directed to other quarters, where they were enabled to render the most effectual services; and before three o'clock, all fear of the further extension of the flames had subsided. Ten houses opposite the Custom-house were burnt down by two o'clock. Among them were Holland's Coffee-house, the Rose and Crown, and Yorkshire Grey public-houses; and the King's Arms public-house was much damaged.

The East India and Custom-house corps of Volunteers were on the spot soon after the bursting out of the flames, and by their strict discipline, and unceasing attention, prevented much of that plunder and confusion which otherwise would have prevailed. They formed lines across the different avenues which led to the flames, and would on no pretence whatever suffer the crowd to approach.

The Thames, and every place in the vicinity, from which a view of the flames could be obtained, was thronged with thousands of spectators, and at a late hour on Saturday night the populace were still flocking in that direction from all parts of the metropolis.

The books and papers of the Searchers' Office, on the quay, were saved; they were conveyed out of the windows, and put on board a lighter lying alongside. In the Secretary's Office, from being so close to the Housekeeper's apartments, few, if any, documents were saved, and consequently the bonds in the Coast Bond-Office were likewise lost. In the Long Room, the objects so important in a national point of view, the books, and some of the documents of the collector outwards, were saved; but those belonging to the collector inwards, were lost. Documents approaching one hundred years old have been nearly all destroyed.

The actual loss to Government by the sudden destruction of the Custom-house cannot be calculated; books, bonds, debentures, pearls, coral, valuable property of every description, and securities of all kinds have been consumed.—The private property lost within the building is very considerable. Several gentlemen had large sums of money in their desks, ready to make payments on the following day. One gentleman has lost upwards of six thousand pounds in bank-notes, which will be irrecoverable, as the memorandum of the numbers was in the desk with the notes, and met the same fate.

A very fine collection of pictures, which the Commissioners had permitted a gentleman to leave in deposit till convenient for him to pay the duties, amounting to 1500*l.* is burnt.

At a late hour on Saturday night the fire was completely subdued. We are happy to say that it did not extend to any of the large warehouses which lie towards Tower-hill, or to the wharfs or cranes on the Custom-house quay.

The gunpowder which exploded is said to have been deposited in the armoury of the Custom-house Volunteers; there were deposited there likewise 530 stand of arms, 500 suits of clothing, &c.——The insurance on the Custom-house amounted to 40,000*l.* Ripley was the Architect of this building.

It was feared that the public business which, by this calamity, was completely at a stand, would be forced to remain so for a considerable length of time; but, by great exertions, the more pressing affairs of the Ship-owners and Merchants were resumed on the following Monday morning; chiefly at the Commercial Sale Rooms in Mincing-lane, which afforded the only temporary accommodation that could be obtained at the moment.

formed the lower part of this structure, were crowded with goods; the securities of different kinds given by merchants, exporters and importers, were unprecedented in number and value; and the total loss of these documents, by no fault in those who were parties to them, was unavoidably most distressing.

The public injury was greatly aggravated by the destruction of those records of national commerce, of which the Custom-house of London had now become the repository, not for that port only, but for those of the kingdom at large. On the nature and value of these, an instance may afford some information.

The prodigious increase of manufactures, the wonderful additions to the property deposited in this kingdom as a place of security from foreign plunder and rapine, combined with other causes to render an accurate knowledge of the imports and exports of Britain an object of the highest interest to the legislature. This increase of commodities demanded a corresponding increase of ships to convey them; and increase of ships demanded a greater number of sailors to work and conduct them. On this the maritime power of the state in great measure depends; and its importance justifies the closest attention and protection of every British statesman.

So long ago as the close of Charles II.'s reign, the privy council for trade urged the Commissioners of the customs "to enter the several commodities which formed the exports and imports; to affix to each its usual price, and to form a general total, by calculating the value of the whole." The Custom-house officers thought this a task beyond their power; but in 1696 the peers carried their point, and obtained the establishment of the *Inspector General of Exports and Imports*, and also of the *Custom-house Ledger*, which records the particulars and value of both.

To the Act of Union the public is indebted for the establishment of the *Register-General of Shipping*; for this act required the then existing ships of Scotland to be registered, in order that they might be the more satisfactorily ascertained: this led to a distinct establishment for the purpose, and the principle was extended to all ships claiming the privileges of British vessels.

While, therefore, the commerce of the port of London was annually enlarging itself to a most wonderful extent, the nation, as a community, was continually becoming more deeply interested in the accommodation given to these public objects, and in the safety with which the various documents were lodged in this national establishment.

We are no longer contemplating times when the king at Belin's-gate took his customs of *farthings* from certain quantities of corn, of coal, and of herrings; when every great ship paid for standage, *two-pence*. The produce of the royal customs is no longer to be reported at ten or twelve pounds by the year; nor is the value of imports to be estimated by the toll of one in the hundred of white herring, or two fish fairly taken as a per centage from a cargo of salmon. The manufactures, the commerce, the power, the wealth of the nation is incalculably increased: even the ministers of Elizabeth, were it possible they should be in office now, would find themselves obliged to yield to the force of events. It was wise in them, in their time, to direct the concentration of the customs in the port of London; but it were folly to persevere in that wisdom, when the absolute multiplicity and overflow of business enforce the remission of a portion of that transacted at the Custom-house, to other places on the river. To this overflow, the West-

India Docks, the East-India Docks, the London Docks, the Greenland Docks, &c. &c. which by their magnitude as buildings, and their great utility as warehouses, strike foreigners with surprise and admiration, owe their existence. It must be confessed, that the mass and the regularity of these edifices, impart to them an air of magnificence, nothing less than imposing in the eyes of spectators who contemplate them from the river.

And it must be further confessed, that in the interval since the building of the late Custom-house, the conceptions and expectations of the public, in reference to national structures, have experienced a wonderful enlargement. The Bank is no longer that mere company's hall, which it had been; the India House no longer resembles the private abode of a private merchant; the city has built a Mansion-house for its chief magistrate; Somerset-House, as a public building, has started up to adorn a part of the river, as well as of the Strand: it was but natural therefore to expect that the New Custom-house should honourably support its station among national works, and should be rendered conspicuous; not by its magnitude merely, or by its importance, but by the accompaniments of a proper degree of architectural symmetry, style, and elegance.

The combinations of Science and Art are susceptible of infinite variety, in form, application, and character. And this variety is the cause that scarcely any work, of which design is the basis, will equally approve itself to every spectator. Imagination differs in different persons; and the judgment not seldom errs on the very side which is presumed to be the most secure. Those who are ignorant of the difficulties of the case, or uninformed of the demands made on the skill of the Artist, unwittingly withhold justice from what he has done, because he has not accomplished what was beyond his power, or out of his commission: whereas, in truth, the meed of merit should be adjudged with candour and liberality. In a study so extremely varied and extensive as Architecture, imperfections are almost inevitable; and the master in whose works the fewest errors offend the judgment, the fewest deviations from skill and good taste, detract from general merit, may not only claim protection against the insidious attacks of hypercriticism, but may honourably demand his share of applause for whatever ingenuity, knowledge, and talent his performances exhibit.

To the almost incessant labour and indefatigable perseverance, which are indispensable qualifications for the acquisition of skill in this laborious profession, must be added the diligent investigation of the best models, the habit of examining what Art has already produced of laudable and excellent, the power of penetrating the principles on which such works are composed or conducted, the spirit or promptitude of comparing with each other objects conceived, as well as objects already completed, and of foreseeing effects and consequences, not in the mass only, but in detail. By these qualifications and habits, the natural taste becomes refined, the eye, exercised in distinguishing forms, and habituated to the selection of the most pleasing, becomes by degrees, not only a capable judge, but it acquires a perception, little short of certainty, in deciding on the merits of a composition, or in estimating the just and necessary properties of a building.

The mind expanded by research, regulated by good taste, emboldened by study, will almost intuitively seize the characteristics of the most eminent masters; these it will emulate, not by servile imitation, still less by slavish repetition or indolent plagiarism, but it will exercise a bold

and manly freedom, while it aspires to equal merit, and exerts its powers to produce equal excellence; perhaps to advance one step further towards perfection.

The genuine Architect will never lose sight in his works of the permanent principles of convenience, strength, and beauty. These he will most assiduously combine; always studying to maintain a due balance; not suffering either to encroach on the other, nor allowing a deficiency of either to be justly chargeable on his designs. An able writer on this subject properly observes, "Strength, in too great a degree, may become clumsiness; convenience may be refined into effeminacy; and a profusion of ornament, intended for beauty, may degenerate into frivolity and voluptuousness."

Nor let it be thought that any style of Architecture is proscribed by these principles: its examples may, indeed, be depraved by manifest incongruity, or be degraded into revolting deformity; while the system itself may, nevertheless, be susceptible of much beauty and happy application. We are by nature, no less than by habit, friendly to variety; and nothing offends us more than a heavy, monotonous style of building, without diversity of parts to relieve the eye, without symmetrical disposition to gratify the mind. But these defects are not of necessity inherent in any style of building; the Gothic or the Grecian system of Architecture, when aptly and judiciously applied, may excite our applause, without impeachment of good taste, or of that correct judgment, which, after all, is the happy acquisition of few, though too often the unqualified boast of many.

The external forms of buildings admit unlimited variety; but, without exception, their fitness for the purposes intended, controls every conception of beauty derived from embellishment or magnificence. Their internal proportions must, of necessity, coincide with their destination; and the judicious appropriation of the parts, must determine the distribution of the whole. This by no means forbids an internal magnitude corresponding to external form, where it is consistent with propriety; nor a due compliance with the character of each particular apartment, whether in reference to decoration, or to simplicity.

Permanent beauty in the proportions of an edifice, are most satisfactory, when the dimensions, the character, and the use, are in harmony with each other. But to accomplish this is difficult; and completely to accomplish it is, perhaps, a happiness rather to be accepted as a favour of fortune, than to be anticipated as an operation of skill. The influence of education, habits of thinking infinitely diversified, local circumstances, particular views, with a thousand other causes, produce unlimited modifications of principles, with endless varieties of style among individuals, and among nations; in different climates, and under different modes of life. Each may have its merit in its own place, and in its native situation; while elsewhere this merit would be worse than indifferent, it might even become offensive.

Exotic ornaments partake of this disadvantage: they never are entirely and completely suitable. Though patronized by the fashion of the day, they are not effectively naturalized by good taste. After the lapse of a few years, they excite aversion rather than delight; and remind us of the temporary costume of the moment, rather than of the sterling talents and judgment of those who adopted them.

Early in my professional career, I submitted to the notice of the public a small work of Architectural Designs for Houses, the numerous imperfections of which experienced more indulgence than could have been anticipated by an author and an artist, of no longer standing in the profession. Seventeen years having since elapsed, that plea is of no avail against the decision of votaries of the Arts on subjects resulting from maturer labours.

In submitting the present volume to the tribunal of public opinion, I beg leave to observe, that those numerous additions and alterations are excluded from it, which I have been employed to make to dwellings already constructed; together with many other designs which, not having been carried into execution, can be considered as proposals or projects only. Such conceptions, whatever merit they may possess, are seldom so satisfactory, or so interesting, as those of entirely original and complete constructions.

The first part of my present work consists of a general history and description of the New Custom-house, including such observations as naturally arose from the difficulties of execution; which could be discovered and ascertained only as the undertaking proceeded in its various parts. Such information may be of use to Artists engaged in the construction of massy and elevated edifices; they may forewarn the judicious of embarrassments not always adequately contemplated, and never willingly anticipated; while they afford hints from which, I hope, it is not too much to say, the practical man, as well as the theorist, may derive substantial benefit.

The second part of the work contains a selection of designs for private edifices, most of which have been executed in different parts of Great Britain, &c. Owing to the distance of some of them from the metropolis, by which of necessity my whole attention has been engrossed during the last five years, it was not in my power to superintend their erection personally; but the designs, working plans, and other details, were furnished by me. I flatter myself that these Plates, with their descriptions, will meet with approbation; and I take this opportunity of announcing my intention to resume that department of my private practice, which unremitted application to a most arduous and responsible duty, now completed, had obliged me to forego.

These explanations will be accepted as an apology for the omission of local details, for the absence of reference to the surrounding scenery, and for apparent inattention to other particulars which might have been interesting to the owners, or gratifying to the curious. Nevertheless, I have ventured to introduce a few brief practical remarks on scenery in general; on aspect, soil, planting, the dry-rot, &c. in proof that I do not consider these subjects as being of small importance, but as extremely proper to engage the attention of the Architect, as they must and will occupy the solicitude of the proprietor; and, indeed, they deeply concern the welfare of the public at large.

TO THE

HONOURABLE THE COMMISSIONERS

OF

HIS MAJESTY'S CUSTOMS.

GENTLEMEN,

SANCTIONED by your permission, with the most lively Gratitude I dedicate to you this History and Description of the Principal Subject in the present Volume.

The approbation you have been pleased to express of my services, during the progress of this arduous undertaking, in which I have been so long engaged under your auspices, has been the most effectual relief to my anxiety, and affords the most ample recompense to my exertions.

I avail myself of this opportunity to express to you generally and individually, the grateful sense I entertain of your confidence and favours.

I have the Honour to be,

Gentlemen,

Your faithful,

And most obedient humble Servant,

DAVID LAING.

Hatton Garden,
May, M DCCC XVIII.

DESCRIPTION OF

THE NEW CUSTOM-HOUSE,

WITH GENERAL OBSERVATIONS.

THE structure that forms the principal feature in this work, has seldom been exceeded in England in extent or magnitude, or in the multiplicity of combinations demanded for the accommodation of an establishment so extensive, and gradually become so intricate. To counteract this intricacy by arrangement and appropriation, has been a work of great labour: and the undertaking being national, a history of its progress will I trust be found not undeserving attention by the public, and especially by that judicious part of the public which attaches importance to the appearance and construction of our official buildings.

The numerous impediments to business produced by want of room, imperfect arrangement, and extremely defective combination in the late Custom-house, had rendered a conviction of the necessity for considerable alterations in the building, very prevalent among the gentlemen intrusted with this department of the public service. It was therefore at first in contemplation to enlarge the Long Room, and to obtain an additional wing at the eastern extremity; but on mature

consideration, this project was found to involve so many difficulties, as to render the undertaking almost impracticable. Beside the unavoidable interruption to public business, attendant on that measure, the decayed and dilapidated state of the building itself was discovered, on the necessary and more accurate examination, to be such as would not warrant the expenditure of those great sums of money which must have been required: and, after all the suggested addition, the enlargement, and what other forced conveniences might have been contrived, the whole would have afforded but a partial and insufficient increase of facilities to business.

On the recommendation of the Board of Customs, the Government abandoned that proposition, and directed designs and estimates to be prepared for an entirely new edifice of sufficient dimensions to combine all the departments connected with the Customs, which had heretofore been conducted in a state of separation. A principal object also was to be accomplished, by providing sufficient cellarage and warehouse-room for the reception of that vast importation of merchandise which, of late years especially, had reduced the Customs to the necessity of occupying premises remote from the center of business: in short, to provide at once, instead of by piecemeal, for the pressing and increasing commerce of the port. For it was well understood, that a building which afforded facility and accommodation to His Majesty's subjects connected with the commerce of the metropolis, to the fiscal establishment of the country, to the national and public concerns in this important branch, would ultimately prove a saving to the Revenue, while, at the same time, it became an ornament to the river Thames, and to the city of London.

The designs now submitted to the public were preferred by the Commissioners of the Customs, and received the final approbation of the Lords of the Treasury in May 1812. The proposed site was also fixed on, being freehold property of the Crown, and a great portion of it at that time lying waste, in consequence of a fire which had consumed several extensive warehouses, in May 1808.

An Act of Parliament[a] was subsequently obtained for carrying these designs into execution, and for acquiring by purchase a cession of the rights and interests of the proprietors and inmates in such premises as were intermingled amidst those which formed the property of the Crown.

Among the several plans proposed for accomplishing this great undertaking, some had distinct and powerful features: a few remarks on one of them, as it concerns the improvement of the city, in a crowded and central part, may properly find a place in the present narrative.

PLATE I.

The streets leading to the Custom-house are, in every direction, so extremely narrow, crooked, and inconvenient, that it has been an occasion of wonder for many years past, by what means the vast traffic that passed through the gates of these wharfs was conveyed away. Nothing but the habit of the carters, formed by daily exercise, with the admirable accuracy and docility, little short of rationality, of the horses, could have accomplished the business. It was, therefore,

[a] This is entitled, "An Act to continue the period for purchasing the Legal Quays in the Port of London, as well as for enlarging and "improving the Public Ways and Avenues leading to it." 52 Geo. III. cap. 49. The deficiencies which would have been occasioned in the produce of the Parochial and Ward assessments and rates in the parishes of St. Dunstan's in the East, St. Mary at Hill, and the wards of Tower and Billingsgate, by removal of premises, are by the Act directed to be paid by the Crown; but the New Custom-house, with its premises, will be exempt from the payment of rates and assessments from April 5th, 1812, even should the same become private property, by sale or assignment thereof to individuals.

proposed to remove entirely the mass of obstructions to free passage, and to place the new Building according to the plan shewn in this Plate, which exhibits the Streets, Quays, and Warehouses in the immediate vicinity of the Old Custom-house: and, instead of carrying the embankment further out into the river, it was intended merely to rebuild the wharf wall in a rectilineal direction. But, the execution of this extensive conception would have occasioned a vast additional expense, with a tedious and inconvenient delay: it was therefore laid aside, without proceeding to make regular designs, or more than general calculations.

The two intended docks would have been useful; one for foreign vessels, the other for coasting vessels; and, by forming the bottoms on an inclined plane towards the river, and paving them with stone, they might have been cleansed at each successive ebb of the tide, by means of reservoirs of water formed at the upper end, and filled on every accession of high water.

It may be observed, that the houses proposed by this plan to be taken down, are in the last stage of decay: the buildings intended as substitutes for them, would have produced wider streets, would have admitted a more effectual circulation of air, with much more convenient access, for the benefit of the public; together with incomparably greater security from the spreading, if not also from the occurrence, of fire.

That situation of the building would also have afforded the most desirable elevation for a structure of commanding magnificence, combining with, and, in most instances, terminating, the streets and avenues leading to this busy scene, with almost unrivalled effect. What other advantages the plan included, may be understood, in some degree, from the Plate; and, perhaps, that part of the public which attaches importance to Architectural embellishment of a national description, will feel some regret that an improvement so superior should have been relinquished, on account of its too extensive combinations.[a]

The old wharf in front of the Custom-house, with the adjoining quays, were found, after the fire, to be both in a ruinous state, and of most unsightly appearance, occasioned by their various angles of inflexion; presenting, at the same time, many impediments to the free course of the stream, which would certainly flow with greater celerity, were its banks bounded by straight lines. And, admitting that the wharf might encroach a few feet on the width of the river, yet a greater depth of water would be obtained at the quay, while the excavated earth would greatly contribute to strengthen the general embankment.

[a] In mentioning improvements of public ways, I may be pardoned in stating what has often occurred to me on this head, as likely to conduce to general utility and safety.

Where wide roads or streets intersect each other, an obelisk may advantageously be placed in the centre, to which the eye naturally directs itself; or, if the space be limited, such an ornament may properly be placed at one of the corners, and might be so constructed, as to light a portion of several streets at night. It might be further useful, by bearing on each face an inscription importing the name of the streets on each side of it. At the junction of great public ways, such an object would also serve to protect foot passengers from horses and carriages. To this spot water might be brought for the use of the neighbourhood; and I would particularly recommend an engine to raise water, of sufficient power, with hose and other apparatus, to be available in case of fire.

At a spot so public, a patrol might be stationed every night, for the service of the engine, and for the purpose of forming a nightly guard. This patrol should be paid liberally by the inhabitants, and be made responsible for the discharge of its duty in protecting the lives and property of the residents within the limits of its perambulation. An alarum-bell would also be useful, which might, on any emergency, give notice to a great distance.

It is obvious, that such an hydraulic machine would be applicable to many beneficial purposes: in the drought of summer, for example, the roads, streets, and pavements, might be watered in greater or less proportion, as might be desired; and, by such a convenience, the employment of the present cumbrous water carts would be superseded; health and cleanliness would be promoted, particularly among the more humble orders of society, who rarely enjoy such facilities in their own homes.

It is an historical fact, that during the ravages occasioned by the plague in London, A.D. 1665, the inhabitants of those streets and lanes which were refreshed by water running from the conduits to the river, escaped the contagion.

I cannot better evince the advantages naturally consequent on the execution of such a work, than by referring to the quay at Antwerp, where an embankment of considerable width has been recently carried forward into the river Scheldt. It is bounded by a straight stone wall, in length equal to the extent of the town. This grand work, instead of injuring the river by the necessary contraction it has occasioned, has produced much additional facility to the navigation, and has increased the depth so considerably, that now a first-rate ship of war may, at high water, safely lie almost along side of the quay.

On the front of the quay belonging to the Old Custom-house, were two narrow, ancient, and decayed flights of wooden stairs and causeways, used as plying places by the watermen on the Thames. At these stairs the inhabitants of the parish of St. Dunstan's in the East claimed the right, by ancient usage, "to take water, and to land fuel." This had been construed by some into a prescriptive right of perpetual ingress and egress. To remove these stairs was an act of unavoidable necessity, as they interfered with the arrangements of the new building: but, to preserve whatever of convenience these old stairs could at any time have pretended to, and indeed to augment that convenience, it was agreed with those concerned, that a flight of stone stairs should be erected at each end of the wharf, to be free to the public for ever.[a] This improvement is too striking to require further explanation; as it accommodates, at once, both the public and individuals; while it puts an end to all unamicable discussions on questionable rights and interests. Though the site of the Old Custom-house was freehold ground belonging to the Crown, yet it was subject to the payment of various fee-farm or unimproveable rents, amounting in the whole to £2,150 per annum.

In treating with the several parties possessing property adjoining the Crown land, and now required for the purposes of the intended edifice, the aggregate of their demands was no less than £84,478. It was necessary, therefore, in compliance with the provisions of the Act of Parliament, to take the verdicts of juries on several of these claims; and the sums paid under such verdicts, together with those paid under amicable agreements, amounted in the whole to £41,700. I had previously estimated this property at £44,700. The old materials brought, by sale by auction, the sum of £12,400.

The original estimate of the cost of laying the foundations, and of erecting the superstructure, was taken at £228,000, in which a sum was allowed for contingencies, not susceptible of calculation. Public competition was resorted to, in order to obtain the lowest tender, and this was fixed at £165,000, exclusive of contingencies, and of the foundations; it being very justly remarked, that to ascertain what difficulties might attend the foundations, was absolutely beyond professional sagacity, and consequently beyond a fair and honest estimate: experience justified this conclusion, for the expense of laying the foundations eventually exceeded the previous estimate formed. A contract, at the price already stated, was entered into with Messrs. Miles and Peto, who were also bound to complete the undertaking within a stipulated time.

[a] This quay will form the commencement of a prolonged line of wharf, which it is highly desirable should be continued from London Bridge to the London Docks. This line is drawn parallel to the water way on the South bank of the river, at low-water mark. The extreme of the alignment is so produced as to be easily united with any ulterior embankment with which it may be connected, whether east or west of the new quay.

This arrangement is carrying into execution, with the additional and long-desired improvement of filling up that part of Billingsgate Dock northward of the line, ranging with the south front of the New Building. The market will be improved, and the nuisances hitherto experienced by the public from the dock, will be removed. An increased space is also obtained at the avenue to the west entrance; and a similar avenue at the east entrance will be made to correspond, will be enclosed with gates, open iron railing, &c.

Here it becomes me to confess, that experience on many former occasions, had led me to doubt whether the work would be so satisfactorily conducted and terminated by contract, as by measurement and valuation: the result has agreeably disappointed me. It is obvious, that the mode adopted added greatly to the labour of the Architect; especially, as in this instance, he considered it to be a part of his duty to take the dimensions of every *item* of the work, from its commencement. By this process the cost and value of any portion or separate part of the construction may be obtained and calculated, for the purpose of computing extras and omissions, which of course followed the fluctuations of prices at large, in respect to materials and workmanship; and moreover it answered another purpose, not less important, that of certifying the amount of the proportionate instalments to be paid as they became due; and of determining the value of the whole building, in the event of any difference between the contracting parties; with the satisfaction also of being able at all times to answer any inquiries or references that might incidentally be made.

In contemplation of a building of such great magnitude and weight, it became a duty of most anxious necessity to examine and ascertain completely the nature and properties of the substratum. For this purpose the ground was bored in various places, with augers twenty-five feet in length, the end of which terminated in a shell, in order to bring up for examination specimens of the soil, from the depths of eighteen or twenty feet. These trials produced a compact gravel, discoloured as might be expected, and as every thing seemed to confirm, by its vicinity to the bed of the river. The results of several borings indicated a uniform stratum, the most desirable in nature for the reception of a large edifice, while its compactness and extent excluded every suspicion of its being otherwise than native; and this confidence was strengthened to conviction by finding the bed of the river in parts adjacent, to answer the same description. Notwithstanding, as the soil above this stratum proved to consist of ground artificially and somewhat loosely made, a resolution was taken to drive piles over the whole surface of the foundations; and the work was begun August 1, 1813.

But these favourable appearances were delusive: when the trenches preparatory to the foundation were dug, no regular stratum of native ground could be traced. Rising from the level of the river to the south side of Thames-street, the whole of the extent was discovered to have been formerly a part of the bed of the Thames. Quantities of rushes were found, intermixed with chrysalids of water-insects. Mussel-shells were also found in different stages of decomposition; those lying at the south-east corner of the quay presented a greenish hue, inclining to the colour of verdigris; while those which were brought up from the depth of seventeen feet below the surface of Thames-street, were nearly reduced to earth.

It deserves remark, that on this occasion three distinct lines of wooden embankments were found at the several distances of 58, 86, and 103 feet within the range of the existing wharf,[a] and

[a] These distinct lines of walling, with the distances at which they were respectively found, and the different levels implied by those distances, suggest important reflections on the ancient state of the river, and on the levels to which the water rose, at high tide, anciently. It is evident, that if it rose fifteen or twenty feet higher at the Custom-house, it would rise proportionably higher at Dowgate, and into the *sinus* formed by the river Fleet, where it would naturally constitute a considerable loch or body of water and mud, extending much beyond Holborn Bridge northward, and up much of the present Fleet-street westward. It would follow, that Lud-gate, when first built, though high on the ascent, was but at a convenient distance, as a gate of entrance, from the water in the river Fleet; and that the city walls following the course of the ground, though the water has now removed from them, were placed, with the utmost propriety and good judgment, in the most advantageous position for defence. It is difficult to bring ourselves to adopt the opinion of Sir Christopher Wren, that the hill on which St. Paul's Church stands was anciently overflowed by the sea; unless, indeed, we suppose that great additions have been made to it, in point of elevation; but if all above the level of Old Ludgate be addition, (which Sir Christopher allowed twelve feet of it in height to be) then, indeed, that able Artist's conjecture becomes admissible; and his opinion, that the

about 50 feet from the campshot, or outer edge of the wharf wall, a wall was discovered running east and west; it was built with chalk rubble, and faced with Purbeck stone; this wall was supposed to be either part of the ancient defences of the city of London, or of some outwork, bastion, or barbican, extending westward from the Tower.

These circumstances, with the want of a uniform consistency in the soil, further evinced by the discovery of coins and other articles of workmanship, found by the labourers employed in digging, were amply sufficient to justify the conclusion, that the gravel brought up by the auger, in the first borings, must have been thrown in at different periods coincident with the repeated contractions of the river; and, as it should seem, subsequently to the year 1560, when the old walling was sufficiently distinguishable to be noticed in a view taken about that time, which is given in Maitland's History of London.

The ground being thus intersected in all parts by old foundation walls and embankments, which penetrated to a considerable depth, presented difficulties not the less formidable because they could not, by any possibility, have been foreseen. To surmount them, required the most mature consideration, with a perseverance, increasing as these difficulties were found to increase, by daily discovery, in order that due security might be given to that most important part of the structure, on which the safety of the whole depends. The removal of every obstacle was deemed indispensably necessary, for the purpose of obtaining a sound and trust-worthy foundation. The old walls were so strongly bound and compacted together, that even with the assistance of iron wedges, the materials were not separated without great labour and exertions.

These causes of delay were increased beyond conception by the unfavourable winter of 1813. The vast chasms made by the removal of such great masses of stone and brick-work, were filled every tide with the water of the river, which, occasionally freezing, entirely suspended operations for the time.

At length labour and resolution triumphed over all impediments, and progress was made in clearing a way for driving the intended series of substantial piles. The nature of the soil, never to be considered as wholly free from water, or from its effects, justified the preference given to beech, as the most proper wood for forming the piles. Beech is one-fifth heavier than elm, or than fir; and experience has demonstrated the durability of this species of timber, especially in places where it has been subjected to constant moisture, as it will be in the present instance. In such it has lasted for ages; and under similar circumstances, old beech piles have been found indurated, almost to the consistence of a cutler's hone.

whole country between Camberwell-hill and the hills of Essex, might have been a great *frith* or *sinus* of the sea, and much wider near the mouth of the Thames,[a] acquires great probability. It is well known, that Hadleigh Castle in Essex, and Upnor Castle in Kent, though built to command the river, are now far inland, and shew that the mouth of the Thames is much narrower in the present day, than it formerly was. The same cause, no doubt, operated anciently; and some memorial of it seems to have been handed down by tradition to the days of Fitz-Stephen,[b] notwithstanding it received from him a contrary interpretation. His words are "*Suuiliterque ab Austro* Londonia *muraia et turrita fuit: sed fluvius maximus piscosus Thamensis, mari influo refluoque qui illac allabitur, mœnia illa tractu temporis alluit, labefactavit, dejecit.* On the south side London hath been enclosed with walls and towers; but the large river Thames (well stored with fish) in which the tide from the sea ebbs and flows, and which tide washed those walls, hath, in length of time, undermined them, and thrown them down." Now this is directly contrary to matter of fact. for if the tide had thrown down these ancient walls, the water must have gained on the land; whereas it is evident, from the testimony of all the discoveries made, that every new construction has gained somewhat from the river; and that the most ancient walls were, in fact, the most distant from the water-way, and from the ebbing and flowing of the tide. If, then, the river in any sense "undermined" the walls, it was by retiring from them, and leaving an interval of mud and sand, which gradually became a solid shore.

[a] Parentalia, p. 285.

[b] Died 1191.

Piles were prepared of the length of twenty-eight feet, and of thirty feet; and these were driven in those places whence the old walls, &c. had been removed. They were, on an average, nine inches in diameter, and were used as soon as possible after being felled, with their bark remaining, because the nature of this wood is such, that if exposed to the action of frosts or of damps, it is liable to become blotched and diseased: a premature decay begins, and the timber is rendered entirely unfit for the purpose intended.

These piles were placed in triple rows, under each wall; three feet apart longitudinally. They were shod, and hooped with iron; and they were driven till the rammer of the engine recoiled. But, after much power and considerable time had been spent in driving, it was found necessary to draw many of them up again; in consequence of having been forced into an oblique direction, by the resistance of some intervening portion of the old foundations.

Sleepers of beech, measuring nine inches by five inches, were laid on the heads of the piles, filled in with brick-work, and a tier of beech planking was laid on these sleepers. The planking of the north and south walls was made to lap over that of the east and west walls; and the piles were sawn off at different levels for that purpose. This over-lapping was a necessary precaution to prevent any partial settlement from taking place in the superstructure. A tier of oak chain bond, measuring twelve inches by nine inches, was laid on the footings of all the walls; was dovetailed, halved, and corked.

By this connexion the insistent weights are more equally distributed throughout the foundation, and every precaution is taken to ensure a uniform subsidence and consolidation. Having by these and similar means effected all possible security, the inverted arches originally proposed to be constructed, were omitted, from a consideration that the effect of the chain bond is nearly similar to that of the counter arch; the chief property of which is, to transfer to the foundation under the aperture a portion of the weight of the adjoining piers.

The old sewers, which had served as drains to the former building and its adjacencies, were necessarily cut off; and one general conveyance, of large dimensions, was constructed to supply their places. This sewer runs along Thames-street, and branches down the eastern and western gateways; and receiving all the drainage of the building, discharges the whole into the river.

The first stone of this National Edifice was laid at the south-west corner, on the 25th October 1813, being the fifty-third anniversary of His Majesty's Accession, with the following ceremony.

The Procession advanced, at 3 o'clock P.M. to the site of the intended building, where the first stone was laid by the Earl of Liverpool, First Lord of the Treasury, the right honourable Nicholas Vansittart, Chancellor of the Exchequer, in company with several of the Commissioners of His Majesty's Customs; in the presence of a great concourse of spectators.

Medals of the following descriptions were deposited in a glass urn, and enclosed in the first stone:—an engraved silver Medal, two and a quarter inches diameter; bearing on the obverse, the Imperial arms, with an elevation of the south front of the New Custom-house; and on the reverse, the names of the Commissioners of Customs, the Secretary, and the Architect. Also,

A bronze Medal, inscribed on the obverse, " GEORGE III. born 4th June 1738; ascended " the Throne, 25th October 1760; completed the fiftieth year of his Reign, 25th October 1810." Reverse, " THE FIFTIETH YEAR."

Another Medal, with an obverse of HIS ROYAL HIGHNESS GEORGE PRINCE OF WALES; with the motto, " For the King, the Law, and the People." Reverse, " His Royal Highness " the Prince of Wales, constituted Regent of the Imperial Kingdoms of Great Britain and " Ireland; 5th February 1811."

Another Medal with, on the obverse, the head of HORATIO VISCOUNT NELSON. Reverse, the motto, *H° Vicecom. Nelson ob. Patriam pugnando mort. 21 Octob.* MDCCCV.

Another Medal having, on the obverse, the head of ARTHUR MARQUIS OF WELLINGTON. Reverse, the motto, " Portugal delivered. Spain relieved. 1812."

Three Gold Current Coins of the Realm, British Money.

Two Silver Current Coins, British Money.

Two Bank Tokens, passing as Currency.

INSCRIPTION ON THE BRASS PLATE LET INTO THE UPPER SURFACE OF THE FIRST STONE:

" *CUSTOM-HOUSE: PORT OF LONDON.*

" *The first Stone of this Building was laid by the Right Honourable Banks Jenkinson, Earl of* " *Liverpool, Baron Hawkesbury, First Lord of the Treasury, a Lord of Trade and Plantations,* " *a Commissioner for the Affairs of India, Constable of Dover Castle, Warden, Keeper, and* " *Admiral of the Cinque Ports, a Governor of the Charter House, and an Official Trustee of the* " *British Museum, F.R.S.; by the Right Honourable Nicholas Vansittart, Chancellor of the* " *Exchequer, &c. &c. &c.; and by William Roe, Esq. and Francis Fownes Luttrell, Esq. Chairmen* " *of the Board of Customs; on the 25th day of October, A.D.* 1813: *when His Majesty George* " *the Third completed the fifty-third year of his Reign.*"

On this occasion the Custom-house Volunteers, under the command of Commissioner Lieut. Col. Wilson, attended for the purpose of keeping the ground; and fired three vollies in honour of the ceremony.

Professional men have often been charged with unnecessary reserve, and some have not scrupled to add, from questionable motives; by whom also it has been said, that students have, in consequence, been deprived of the most valuable means of finishing their studies to the greatest advantage; but it ought at the same time to be acknowledged, that practical precepts can be effectually given in the course of practice, only; that to lay down imaginary rules for meeting difficulties is nugatory; and that however books may contain reports of such as have already occurred, they cannot anticipate what others may occur under circumstances of a totally different description. It will, however, readily be admitted, that to a want of familiarity with the practical part of the profession of an Architect, many latent as well as visible errors, which constitute no inconsiderable blemishes in certain Structures, may be attributed; and therefore, having given a brief outline of the previous history of this National Edifice, I shall now offer a few observations explanatory of the general design, including also the leading principles on which the whole has been composed and constructed. I enter with the greater pleasure on

this part of the work, because after all that may be advanced in favour of theoretical knowledge, nothing can so effectually promote the true progress of the Art, as illustrations, really practical, of the designs, the operative labours, and the details of a large and massy structure. The subject is confessedly of great importance to society, as well as to professional men; by whom such contribution, being the result of much study and experience, may be deemed a beneficial accession to the public stock of general knowledge. This intention has also been kept in view in the composition and selection of the Plates.

The first and leading principle to which every other arrangement has been subjected, was the classification and combination of the numerous offices and departments which were indispensable to the perfect utility of the building, with all possible relative contiguity and convenience; to adjust the whole with the greatest readiness and facility of access to every part, in order to accommodate the public; and whoever accurately investigates the plans, or perambulates the building, will be fully convinced that unlimited consideration and reflection have been bestowed on this part of the general design. It will be recollected also, that each office demanded proper and suitable accommodations for its own purposes and peculiar duties.

Several of the principal departments are so situated as to have each a separate staircase, for the purpose of privacy and freedom of passage without interruption; while it must, at the same time, be acknowledged, that nothing can be more important to the officers of these departments, than immediate access to the heads of the establishment, as occasions arise; with the means of instant reference to books, and other documents connected with their various official duties. In this very important and difficult part of this intricate undertaking, I hope I may be allowed to flatter myself with having succeeded to general satisfaction.

In the interior of the building, I have abstained from decorations, except in the Board Room; judging that much ornament was not suited to the character of an edifice intended to accommodate the commercial concerns of the Nation, though combined with most important public interests.

The north elevation is plain and simple. Plates XV. XVI. I have endeavoured to obtain, by continuity of outline, and great breadth of parts, varied only by a few breaks and projections, a bold and imposing façade. The same principles have guided the composition of the east and the west fronts.

The principal front is to the south; and from its contiguity to the river, whence it is seen in a variety of aspects, and by vessels from all parts of the world, and where it is of necessity exposed to the view and observation of the British Public, which is more especially interested in it, some decoration was indispensable, to impart a distinguishing character, to mark the importance and destination of the Edifice, and to do justice, to a certain degree, to the taste and liberality of the Nation. But though some decoration was demanded by the purposes contemplated, yet it has been but sparingly introduced; and the center of this front, which is the exterior of the Long Room, and two hundred feet in length, is entirely plain, except above the entablature, which is ornamented with figures in basso-relievo, and in alto-relievo, in two compartments, to an extent, of which, probably, there is no example. The compartment to the west,

Plates XXXVIII. XXXIX. contains a series of groups of allegorical figures, marked by their proper attributes, alluding to the Commerce and Power of the Country. The compartment to the east, Plates XXXVI. XXXVII. comprises a continued assemblage of the various Nations with which our country carries on commercial intercourse, each in its proper costume and action. These extensive compositions of figures are in length one hundred and thirty feet, by five feet three inches in height. Above these, in the center, are two recumbent figures, symbolizing Industry and Plenty; they support the hour-dial.

The record of the Founders of the Building, with the date of its completion, is inscribed on a tablet underneath, in bronze letters; and forms an ornament in harmony with the terminating group.

The ground-floor of the center presents a bold projection, which distinguishes, with a strict adherence to propriety, the entrance to the King's Warehouse; while, at the same time, it forms an appropriate support to the Imperial Arms, upheld by the presiding powers of the Ocean and Commerce.

Gratified with the simplicity and breadth of the center, and its parts, the eye directs its attention with pleasure to the varied effects of the wings, each ornamented with a hexastyle detached colonnade of the Ionic order, the projections of which are somewhat massive; and as these component parts harmonize with the prevailing character of the front, the general principle of unity is maintained throughout the whole.

Great difficulties were experienced in adjusting the warehouses and cellars, which were objects of primary importance to the particular purposes of this edifice; yet were of necessity placed in the ground-floor, and the basement or substructure. They demanded also large dimensions for the reception and stowage of bulky articles of merchandise, and for the safe custody of great quantities of commodities, national and foreign; some of them of a like kind, others exceedingly dissimilar in their nature and properties. Neither were the peculiarities of these to be overlooked; to which the maintenance of a due temperature of the localities respectively, was of essential consequence, as well as to the comfort of those officers who were to be constantly employed in this department of the service. They are therefore situated to the south of the edifice; and the whole forms a solid and massy crypt, or undercroft, subservient and subordinate to the superstructure; not preponderating by its magnitude, nor disproportionate by its elevation.

I may be permitted here to state, that I have long viewed with indifference the costly Portico, as attached to the center of several conspicuous buildings in this country. But too often, the trifling projection of this member of the edifice, in proportion to its height, sufficiently evinces the misapplication of its properties; for it neither affords security against driving rain or snow, nor imparts dignity to the front it is intended to embellish, nor does it produce that breadth and boldness of shadow which is necessary to a grand effect, in an extensive and costly edifice. These remarks more particularly apply to such instances as face the north, from which quarter, or its proximate points, the sun never shines in Britain, or shines with rays so oblique and feeble, as elude the intention of a sheltering portico; in consequence, this appendage seldom produces

any better effect than a kind of gloomy shade in the interior of the edifice. The magnificence of a well-proportioned Portico is readily admitted; but the adoption and the application of it must be controlled by the superior principles of convenience and utility.

A Colonnade of equal height with the rooms of the ground-floor, is more appropriate to our climate; yet even this is attended with inconvenience: it diffuses a gloom throughout the lower apartments, and frequently must be enclosed at the ends, to exclude those currents of air, which are not without danger to health, or which, vibrating among the pillars, produce a fluctuating monotony of sound, at once dismal and dispiriting, moaning, and melancholy.

For these reasons, as well as from considerations of propriety and convenience, the structure under description presents neither Portico nor Colonnade; although, the principal front being to the south, that aspect, if any, might be pleaded in apology for such an appendage.

The repeated destructions of the former Custom-houses by fire, demonstrated the necessity of employing every precaution that could be devised, against the recurrence of so great a calamity; and various measures, not usually taken, have been superadded, to render the whole of the new Building, if not absolutely fire-proof, yet, as far as possible, incombustible. To effect this, the basement floor is vaulted and groined in brick-work throughout. This renders the whole extent of it completely secure; while it possesses also the further advantage of maintaining a temperature favourable to wines and spirits, of which these vaultings are the proper receptacles. These cellars are, moreover, substantially paved with Yorkshire stone; and the floor is sufficiently high above the level of the river, to preclude all apprehension of damps, whether occasioned by the localities themselves, or by any effects arising from percolations of extraordinary tides. The King's Warehouse on the ground-floor, and also the cellars beneath, are constructed with a series of diagonal elliptical ribbed arches, intersected by parabolic vaulting, two bricks thick, springing from octangular radiated capitals of Dundee stone, resting on piers of Aberdeen granite, two feet six inches square at the base; but gradually diminishing upwards to the form of the capitals. In the operation of building, the joints of these pillars, and of their capitals, were left open till the arches were well settled, in order to preserve the stones from damage by flushing or chipping off.

This method of vaulting over large areas, is preferable to that by groined vaulting, on account of its superior strength and beauty: the diagonal ribs constitute firm arched abutments, and receive equal pressure on both sides from the intrados (or intervening vaulting), by which means the whole mass forms one combination, acquires all possible compactness, and is rendered absolutely secure.

The lateral pressure of all the interior arches is in all points counteracted and counterbalanced by that of every surrounding arch; while the pressure at each end of the building is received by abutments made abundantly solid and strong to sustain the ultimate thrust of the whole range, on the principles of resistance and equilibration. The strength of the construction, with the quality of the materials, was repeatedly and amply proved, by loading the extrados (or superficial series of vaulting) in various parts and places with enormous weights, during the progress of framing, preparing, and hoisting the timbers of the roof of the Long Room; which was performed by means of Derricks placed on these arches.

In point of appearance, this warehouse presents an imposing aspect, in the interior; from its great extent; from the varied effect of the lines of its construction; and from the light and shade produced by its forms.

In pursuance of the determination to guard effectually against the progress and ravages of fire, all the passages, lobbies, &c. &c. are constructed in groined brickwork; they are also paved with stone on the ground floor, on the first story, and on the second and third stories: provision is also made for cutting off, at pleasure, the communication between the wings and the center, by means of iron doors, which run on wheels in a chase in the middle of the walls, and are moved forwards or backwards by a windlass. These doors are closed every evening; and in case of alarm, would effectually prevent the communication of fire beyond those boundaries. As a further measure of security, fire-proof rooms are provided on every story, where the books and valuable papers are deposited every evening after the hours of business and attendance are over; these are removed, by confidential porters, to their proper places in their respective offices, every morning when their services are required.

The Long Room is one hundred and ninety feet long, by sixty-six feet wide. These dimensions, which are nearly in the ratio of three to one, would be disproportionate, if the apartment were on a much smaller scale; and would approximate to the form of a gallery, without properly answering to that character: but, in the present instance, the length of the room is so much more reduced by the effect of the perspective than the width is, that the eye cannot possibly comprehend both the length and the width at the same time; and, consequently, it is deprived of the only means of forming an estimate of the real or the comparative dimensions of length and breadth. In order to harmonize the length and width of this room with its height, it is formed into three square divisions, or compartments, by eight massive piers, which, at the same time, answer the important purposes of adding stability to the walls, and of reducing the span of the ponderous roof, of which (as it has no bearing on the walls) these piers form the entire support.

Each square compartment terminates in the frustrum of a dome, springing respectively from four segmental arches; the center dome, which is fifty-five feet high, being the most lofty. The segments of these curvatures are purposely kept low; because that form gives dignity and character to the general appearance of the room, and finishes in a favourable manner such great breadths as present themselves below the springing line of the arches. Each compartment is ventilated through its respective dome; and, by the same means, currents of air are supplied throughout the timber roof, for the purpose of preventing the accumulation of deleterious vapour, for that also of ensuring a supply of fresh and salubrious air to the interior of this large apartment, and at the same time checking those troublesome, and, too probably, dangerous currents, which otherwise would force an entrance at the door-ways.

The lights deflected from the surface of the river, with the variety of shades and tones of intermingled light and shade which flicker on the cieling and the arches of this room, produce a singularly pleasing effect. The whole of the cieling, and the walls, is tinted and drawn to represent stone: the floor is paved with stone. But, to provide against the severities of the winter season, the room is heated by two large pedestals of cast iron, within which are enclosed stoves, and vertical tubes discharging heated air, with lateral horizontal tubes conducted under the floor.

In this building, designed to accommodate the public, a great number of persons may be expected to assemble at the same time, and with the same intent. I have purposely avoided the introduction of a single grand entrance; lest the crowd entering, should at any time be obstructed by the crowd returning. Two distinct public entrances are therefore provided in the north front, each having a double flight of steps, which materially facilitates ingress and egress; nor can any pressure happen, or any inconvenience be experienced, whatever may be the exigencies arising from haste among the numbers who attend here on the extensive commerce of the country. And beside these more conspicuous entrances in the north front, there are also convenient entrances in the center of each flank, for the departments respectively attached to those flanks; and one nearly in the center of the south front, affording access from the quay and the river.

On passing either of the principal entrances, a grand staircase presents itself immediately opposite; and by a double flight of steps, conducts to a lobby, one at each end of the Long Room. These lobbies are lighted by lantern lights; and, among other uses, they serve to check the great indraught of air which would otherwise rush into the Long Room, if it opened directly on the staircases. The access from the staircases to the galleries over the lobbies is easy; and the effect produced by the apertures is pleasing and picturesque. The soffites of the lanterns above the staircases are divided into eight compartments; four of which are perforated for ventilation: the others are closed, panelled, and adorned with rosettes.

The south front is executed in Portland stone, Plates XVII. XVIII.; and it may be useful to remark, that in bedding the masonry, where it is backed with brickwork, *chalk-lime* mortar was the only kind used; as I have found, by experience, that mortar made of *stone-lime* completely penetrates the stone, and discolours the surface. The bond stones throughout are each in two pieces, strongly united by cramps, in preference to their being of one entire stone, because the cramps, being of metal, may be brought to yield a little to the force of compression, or the consolidating power of the brickwork; and by this pliancy, provision is made against the consequences of that settling to which all brickwork is subject; whereas, had the bond been in one block, it would either have given way, and thereby have been weakened by a fracture; or if it had maintained itself entire and firm, the wall, instead of continuing perpendicular, would have been drawn inwards by the greater settlement or subsiding power of that portion of it which was formed of brickwork.

In all the joints of the stone columns, of the piers, and the pilasters, milled lead was laid, in order to prevent fractures near the outward edges. And further to guard against accidents, another precaution was used, that cannot be too strongly recommended, especially in large operations:—the stone window-sills, the soffites of the doors, and of the windows, were laid loose, and were not bedded, or inserted in the walls during their progress; nor, indeed, till some considerable time after the walls had been carried up. By this attention, all of them have been preserved from fracture; whereas, had they been laid while the walls were fresh, they would have been exposed to the danger of dislocation and injury, by the compression of the mortar joints in the solid piers, which, pressing the soffites and sills at each end, would have acted on them with the power of the lever, and would have forced them upwards near the middle. The adoption of inverted arches under the apertures, will not obviate the mischief consequent on the greater settlement of solid piers; although such arches distribute a portion of the insistent

weight to the intermediate foundation, and thereby discharge so much of it from the immediate foundation of the piers.

Portland stone should be selected with the greatest care; and particular attention should be paid to its colour and quality. It is often found that blocks, such as the granulated roe[a] stone, have flaws and vents, which are not even suspected till the block has been sawn through. This stone is friable, and soon suffers a kind of crumbling, or disintegration; it should, therefore, be introduced with caution, particularly where it is expected to sustain any lateral pressure.

Another observation on the nature of Portland stone, may properly be introduced here. The piers and springing stones in the cellars under the King's Warehouse, were, in the first instance, of Portland stone; but, having observed that they were partially flushed by the pressure and weight of the arches, I did not think fit to hazard the least failure in this important part of the building, and therefore substituted granite stone piers, and Dundee stone springers, similar to those in the King's Warehouse.

And now, having attained the conclusion of this part of my labours in reference to this National Building, I may be allowed to take the opportunity of expressing my most cordial wishes in behalf of my Country,—that an extended and legitimate commerce may diffuse comfort and happiness through all ranks of society,—that its Revenues may enable the State effectually to protect its citizens at home and abroad, to foster the Arts and Sciences, to reward skill and industry, to strengthen and perfect the social compact, universally,—and that the blessings of peace, so happily achieved, under Providence, by naval and military valour, consummated by wisdom and vigour, may be perpetuated to the latest posterity.

An Account, shewing the Official Value of the Imports and Exports of this Country, in the Year 1700, *and for every Tenth Year from thence to the present time: Also, An Account of the Net Payments into the Exchequer of the Revenue of Customs, during the same Periods.*

	Value of Imports.	Value of Exports.	Payments into the Exchequer.
	£.	£.	£.
In the year . . 1700	5,970,175	6,469,146	1,928,108
— 1710	4,011,341	6,295,208	1,208,292
— 1720	6,090,083	6,910,899	1,559,255
— 1730	7,780,019	8,548,982	1,658,714
— 1740	6,703,778	8,197,788	1,302,486
— 1750	7,772,039	12,699,080	1,567,320
— 1760	10,438,689	15,635,774	1,969,993
— 1770	13,484,325	15,391,652	2,546,143
— 1780	11,664,967	13,554,093	2,723,920
— 1790	19,130,886	19,900,882	3,782,822
— 1800	30,570,605	38,120,120	6,799,755
— 1810	41,136,135	45,869,859	10,877,855
— 1815	35,987,582	60,983,894	10,545,985

[a] So called from its resemblance to the roe of a fish.

EXPLANATION OF THE PLATES

BELONGING TO THE DESCRIPTION OF

THE NEW CUSTOM-HOUSE.

PLATE I. II.

General Plan of the Streets, Quays, and Warehouses, in the vicinity of the Old Custom-house; shewing the site originally proposed for rebuilding the New Custom-house; with the improved approaches, &c.

PLATE III. IV.

General Plan of the Streets, Quays, and Warehouses, in the vicinity of the New Custom-house, shewing the proposed improvements in the Streets and Avenues leading to it; with the line of embankment adopted next the river; shewing also, the improvements at Billingsgate Dock, to the west of the Custom-house; and others proposed to the east of the main building.

PLATE V. VI.

PLAN OF THE BASEMENT FLOOR.

This floor consists almost entirely of cellars for the reception of seized wines, spirits, &c. Under the areas in each wing are shewn the tanks for containing the rain-water; and in various parts are described the several cess-pools, drains, and sewers; also the areas to windows, the rolling-ways for receiving and delivering goods, and the bases of the steps.

It will be observed, that the walls throughout are of an extraordinary substance; with various abutments for sustaining the weight of the superstructure. The whole is vaulted in groined work; and the floors are solidly paved with Yorkshire stone.

A Base on which the crane rests for the use of the King's Warehouse.

B B B Foundations of Steps to Entrances.

C C C Rolling-ways.

PLATE VII. VIII.

PLAN OF THE GROUND FLOOR.

Enumeration of the Offices, &c. with a Description of their several Uses.

West Wing.

1. Inspectors of the River. These are five in number; they are the principal officers of the water-guard department, having a superintendance over tide-surveyors, tide-waiters, and watermen, whom they appoint to their respective duties and stations. One Inspector, in rotation, attends at Gravesend, to place tide-waiters on board of ships coming up the river.

2. A Private Room belonging to the same officers.

3. Inspectors' Clerks.

4. Superintendant of Piazza Officers. Piazza Officers attend goods in their removal from warehouse to ship, or from ship to warehouse; before the duties are paid, or the goods are discharged by the proper Officers of Revenue.

5. Lobby to Western Entrance.

6. Watermen's Room.

7. Registrar of Watermen. Office of regulation respecting that description of servants.

8. Tide-Surveyors; twenty in number. These visit ships, whether inward or outward bound, to see that the tide-waiters put on board attend their duty, and take proper account of the cargo; they give a certificate of clearance after the cargo is discharged.

9. Registrar of Tide-Waiters. The office of regulation respecting this class of officers.

10. Tide-Waiters are officers placed on board ships to protect the Revenue; they remain on board until the homeward cargo is wholly

discharged, or on board ships outward-bound till the ship is cleared at Gravesend. This room is the hall in which they assemble and wait, till ordered to the different vessels.

11. Wood-Farm Office. These officers perform the same duty as landing-waiters, for wood, hemp, iron, and such other foreign bulky articles, as are landed at the Surrey Canal, at the Commercial Dock, and at Sufferance Wharfs.

12. Private Room for these Officers.

13. Gaugers; five in number. These measure and calculate the contents of all liquids subject to Custom Duty.

14. Landing Waiters. There are about eighty of these officers. They attend at the Quays, at the East India, at the West India, and at the London Docks: they take a particular account of all goods landed there, by tale, by weight, &c. They give discharges for the same, on receipt of warrants shewing the payment of the duties.

15. Landing Waiter's Private Room.

16. Hall to the principal Entrance.

17. Principal Staircase to the West Wing, leading to the Long Room.

18. Hall to Ditto.

19. Landing Surveyors; six in number. These have the superintendance over the landing-waiters, and over all business in the Foreign Landing Department.

20. Their Private Room.

21. Landing Surveyors' Clerks.

22. Registrars of Landing-Waiters; of their Stations, &c.

23. Lobby to the Entrance under the Western Gateway.

24. East India Landing-Waiters.

Center.

25. The King's Warehouse. Here all goods which are seized are deposited, and an account of them is taken and preserved; also passengers' baggage, from such vessels as discharge in the river, is brought here for examination; as are likewise small parcels of merchandize, for security of the Duties, &c. Attached to this Warehouse are,

26. Surveyor of the Warehouse.

27. Assistant and Clerk.

28. Warehouse Keeper.

29. Warehouse Keeper's Clerks.

30. 31. Inner Warehouses for depositing valuable goods.

Coast Department.

In these Offices all coast business is performed, both inwards and outwards. Every vessel going out of the port (that is, below Gravesend) with goods, must be entered here; and sufferance obtained for shipping the goods. Bonds are also taken for delivery of such goods at the place of destination. The following are the several Officers:— Collector, who has eight Clerks: Comptroller, with one Clerk: Collector of Coast Duties on Coals, Culm, Cinders, Slate, and Stone; who has two Clerks: Comptroller of the same Duties, who has one Clerk.

32. Coast Office Long Room. Here the Collector and Comptroller of the Coast Duties, with their several subordinate Officers and Clerks, transact the business relative to the Coast Department. A portion of this room is appropriated for the Coal Office.

33. Private Room to these Offices.

34. Coast Bond Office.

35. Coast-Waiter's Office, one Surveyor, and seventeen Waiters. These officers attend the shipping and landing of all goods carried coastwise; and see that proper documents are obtained for the same.

East Wing.

36. Hall to the principal Entrance.

37. Principal Staircase, leading to the Long Room.

38. Hall to Ditto.

39. Paper Room for the Plantation Department; Depôt for Printed Forms, &c.

40. Lobby to the Public Entrance from the Quays and River.

41. Receiver of Fines, Forfeitures, Seizures, &c.

42. Clerks to the Receiver of Fines.

43. Clerk of the Checque; on the pay of established, preferable, extra, and glut, Weighers.

44. Appointers of the Weighers. These are inferior officers, who weigh and tale goods on the quays, and report the quantity to the landing-waiter.

45. Engine-house.

46. Coffee Office, comprising a Warehouse-keeper, a Comptroller, and three Clerks; who keep an account of all Coffee, Cocoa, and Bugles warehoused: they also check the entries for their delivery, whether for home consumption or for exportation; they also have the charge of prize goods.

47. Housekeeper's Office.

Searchers' Department.

Searchers are officers which attend the shipping of all goods for exportation; the entries, after being passed in the Long Room, are delivered to them; they examine on the quays, and at the East India Docks, the West India Docks, and the London Docks, such packages as they think proper, in order to ascertain whether the goods correspond with such entries; and that no improper articles are exported. Debentures for drawbacks and bounties are checked here; also, the final clearance of all ships outwards to foreign parts, are here obtained. The following Officers are connected with these Offices: Surveyors of the Searchers; the Searchers, thirteen in number, with seven Clerks; Comptrolling Searchers, twelve in number, with five Clerks.

48. 49. Surveyors of the Searchers.

50. Ante-Room to the Surveyors of the Searchers.

51. Comptrolling Searchers.

52. Drawback and Bounty Office.

53. Lobby to the Entrance under the Eastern Gateway.

54. Office for Clearing Ships.

55. Searchers', and Comptrolling Searchers', Clerks.

56. Entrance and Private Staircase for the Commissioners: leading also to the Housekeeper's Apartments.

57. Office-keeper and Messengers.

58. Room for Merchants and Brokers.

59. Depôt for Books.

PLATE IX. X.

Plan of the First Story.

West Wing.

1. Pay Office for inferior Officers.

2. Waiting Room to the Pay Office, and to the Examiner's Office.

3. Examiner of Day Pay Bills; also of the sufficiency of securities entered into by officers.

4. Supervisor of the Receiver General's Receipts and Payments.

5. Clerks to the Supervisor.

6. Receiver General and Assistant.

7. Strong Room.

8. Receiver General's Clerks.

9. Other Clerks of the Receiver General.

10. Treasury. Offices of Account, and checks upon the various branches of the Revenue.

Bench Officers:—Consisting of Collector Inwards, Comptroller Inwards, and Comptroller Outwards; Surveyor Inwards, and Surveyor Outwards; Collector Outwards. These, it will be seen, are the principal officers for collection of the Revenue; their deputies, or assistants, in the Long Room, compute and receive the duties; the entries and documents for which subsequently receive the signatures of the principals, who also administer the various oaths required in the course of this business.

11. Public Room of the Bench Officers.

12. 13. Private Rooms for the Bench Officers.

14. Bench Officers' Messengers.

15. Lobby to Principal Staircase.

16. Principal Staircase.

17. Accountant of Petty Receipts. This officer has an account of all seizures, and of the distribution of their produce.

18. Surveyor for Sloops. All licences for the trade limits, and for arming of vessels and boats, are regulated and made out here: this office has also the management of the cutters and water-guard of the service at the outports, musters the crews of whale ships, and certifies the bounties to which they are entitled.

19. Assistant Surveyor of Sloops, and four Clerks.

20. Registrar General of Shipping. This officer has a copy of the register of every British ship, with memoranda of every transfer of property therein, &c.

21. Private Room of the Register General.

22. Minor Staircase to the second story.

Center.

23. LONG ROOM. This is the principal apartment for all foreign business, both inwards and outwards. The ship-master first makes the report of his cargo here, the entries of which, either for payment of duties, for warehousing, or for subsequent exportation, are all passed with the respective officers; of whom the following will be found a tolerably correct list:

The Inward Department contains

Collector Inwards.

Clerk of the Rates, and

Three Assistant Clerks to him.

Clerk of the Ships' Entries; having two Clerks.

Assistant Clerk of the Ships' Entries; having two Clerks.

Receiver of the Grand Receipt; having two Clerks.

Receiver of the Plantation Receipt, and one Clerk.

Receiver of the Wine Duties, and one Clerk.

Computer of the Duties on unrated East India Goods, except Tea, Muslin, and White Calicoes.

Clerk to the Computer of Duties.

Computer of the Duties on Tea, Muslin, and White Calicoes; also his Clerks.

Computer of the Wine Duties; also his Clerk.

Clerk of the Certificates, with his Clerks.

Comptroller Inwards and Outwards.

Assistant Comptroller Inwards, and Clerks to the same.

Surveyor Inwards and Outwards.

Assistant Surveyor Inwards, with Clerks.

Examiner of the Duties Inwards, except Wine; also Clerks.

Examiner of Duties on Wine, with a Clerk.

Clerk of the Warrants.

The Outward Department contains

Collector Outwards, and two Assistants.

Receiver of the Duties Outwards.

Cocket Writers; nine in number.

Clerks to the Collector Outwards.

Assistant Comptroller Outwards; also his Clerks.

Assistant Surveyor Outwards, with a Clerk.

Register of Certificate Cockets, and Examiner of Debentures; also Clerks.

Usher of the Long Room, and his Clerks.

. . . . . .

24. Surveyor for the Acts of Navigation. This officer admeasures ships, to ascertain their tonnage for British registers, and calculates the payment of tonnage duty; he also musters the crews of whale ships, &c.

25. Strong Room.

26. Minor Staircase.

27. Comptroller Inwards Private Room.

28. Surveyor of Buildings at the Port of London, for the Outports, and Architect for the Service.

29. Waiting Room, Surveyor of Buildings.

30. Collector Outwards Private Room.

31. Minor Staircase.

32. Strong Room for Deeds and Documents in charge of the Secretary.

33. Trinity Light Office. Collector of the Duties demandable on account of the Trinity Establishment for Buoys, Lights, Lighthouses, &c. for the safety of Navigation. This office does not properly belong to the Customs; but is accommodated with this apartment for the purpose of more conveniently collecting the dues.

East Wing.

34. Clerks of the Bond Office. Here bonds are taken for the due exportation of all goods entitled to drawbacks and bounties; also of prohibited articles.

35. Private Room, or Inner Office.

36. Principal Staircase leading to the Long Room.

37. Lobby to Long Room.

38. Board Room; for the Commissioners who do not give public audience.

39. 40. Ante-Rooms.

41. Commissioners' Committee Room.

42. 43. Retiring Rooms.

44. Secretary's Room.

45. Secretary's Ante-Room.

46. Western Clerk.

47. Ante-Room.

48. Northern Clerk.

49. Plantation Clerk.

50. Principal Clerk.

51. Whitehall and Quarantine Clerk.

52. Other Clerks.

53. Northern, Western, and Plantation Clerks' Clerks.

54. Minute Clerk.

55. Assistant Clerk to Minute Clerk.

56. Clerk of the Papers. These offices are all attached to the Secretary's Department, and are chiefly engaged in the regulation and correspondence of the service.

57. Petition Office, for presenting and obtaining the decision of all applications to the Board on London business.

58. Inner Office for Petition Clerk.

59. Lobby for Petitioners.

60. Private Staircase for Solicitors.

61. Messengers and Doorkeepers to the Board Room.

62. Private Staircase to the Housekeeper's Apartments.

PLATE XI. XII.

Plan of the Second Story.

West Wing.

1. Inspector General's Clerks.

2. Inspector General's Clerks.

3. 4. 5. Surveyors General; four in number. To these officers the Board refer the investigation of charges of complaint against officers; and of any abuse existing in the service. They occasionally survey the outports; and are empowered to take evidence on oath.

6. Clerks to Surveyor General.

7. Messenger to Surveyor General.

8. Lobby.

9. Inspector General of Imports and Exports Private Office. This officer keeps a full account of all exports and imports; from which entries he makes official returns to Parliament, &c.

10. Inspector General's Assistant.

11. Inspector General's Clerks.

12. Inspector of the delivery of all unrated East India Goods, Assistant Inspector, and four Clerks. This office is a check on all goods imported by the East India Company, and on their entries of such goods after sale; whether for home consumption or exportation.

13. Comptrolling Surveyor, of E. I. Goods.

14. Inspector's Assistants, of E. I. Goods.

15. Inspector's Clerks, of E. I. Goods.

16. Lobby and Gallery.

17. Principal Staircase.

18. Inspector of Outport Collector's Account, Pay of Officers, and other incidental expenses.

19. Warehouse-keeper and three Clerks; the duties of whose office include goods bonded under the Warehousing Act.

20. Principal Surveyor, and Clerk.

21. Comptrolling Surveyor, and Clerks.

22. Small Staircase.
23. 24. Housemaid's Closets.

Center.

25. East India Office, and Surveyor of East India Warehouses.
26. Strong Room: Collector Inwards.
27. Staircase.
28. Comptroller Outwards Private Room.
29. Customs' Annuity and Benevolent Fund.
30. Office for the Management and Publication of the Bill of Entry; consisting of all Goods entered Inwards and Outwards, with the report and clearance of all Ships, &c.
31. Minor Staircase.
32. Strong Room: Collector Outwards.
33. Registrar of Land and Water Guard. This officer is charged with the regulation of that service at the Outports.

East Wing.

34. Inspector and Examiner of Plantation Accounts: which Accounts are received from the respective Custom-houses in the West India Islands and other Colonies.
35. Principal Staircase.
36. Lobby and Gallery.
37. Solicitor for Bonds and Criminal Prosecutions.
38. Ante-Room.
39. Room for Clerks.
40. Solicitor for Coast Bonds.
41. Solicitor for the London and Western Ports.
42. Solicitor's Ante-Room.
43. Solicitor's Clerks.
44. Private Room.
45. Solicitor for the Northern Ports.
46. Clerks to the Solicitor for Western Ports.
47. Postage Clerks.
48. Comptroller General's Office. A check on the general receipt and disbursement of the Revenue.
49. Comptroller General's Assistant.
50. Comptroller General's Clerks.
51. Private Staircase to the Third Story.

Housekeeper's Apartments.

These occupy the whole of the east end of this floor.

52. China and Store Room.
53. Kitchen.
54. Scullery.
55. Pantry.
56. Bed Chamber.
57. Dressing Room.
58. Drawing Room.
59. Dining Room.
60. Sitting Room.

PLATE XIII. XIV.

PLAN OF THE THIRD STORY.

West Wing.

1. Clerks to Surveyor of Buildings.
2. Inspector General's Clerks.
3. Northern Plantation Jerquer, and one Clerk.
4. Northern European Jerquer, and two Clerks. These officers check the landing-waiters' books of the cargo; also the entries on which the duties are paid.
5. Wine Jerquer.

East Wing.

6. Southern Plantation Jerquer.
7. His Clerks.
8. Southern European Jerquer.
9. His Clerks.
10. Servants' Hall.

A A A Book Rooms.

B B Temporary and Supplementary Offices.

C C C Bed Chambers.

PLATES XV. and XVI.

Elevation of the North Front.

The view of this Front being somewhat confined by the narrowness of the street in which it is situated, the building cannot be seen under a favourable aspect; I was therefore induced to study a breadth and simplicity of character, as far as consistent with the unity and integrity of the whole.

The center and the two wings form three plain and distinct masses, relieved by a bold projection. The stone basement in the middle is surmounted by eight pilasters, and contributes to vary sufficiently the great continuity of parts which distinguishes this elevation. In conformity to these principles, and moreover to avoid the black appearance to which the surfaces in this situation would be peculiarly liable, this front is of brick, and scarcely any more stone-work is introduced, than was requisite to continue the several members of the architecture from the south front and the flanks. To ensure facility and distinctness of access to the several departments, a considerable number of entrances was required: but several doorways were afterwards closed, from motives of convenience; however they occasion no confusion, as the iron palisading continued across them sufficiently marks their character. A massive granite pavement or terrace, forms the boundary, with an unbroken line, towards the street, and is in the center twelve feet wide: on the verge of this is a series of cast-iron posts, surmounted at intervals with handsome candelabra, and lanterns for gas lights, to the number of twenty-five.

The general effect of this front, when approached from the west, is much superior to what might be expected from this geometrical elevation of it: the extent of the Building being greatly foreshortened by the effect of the perspective, while the breaks give sufficient variety to its forms, and the height of the edifice maintains an appropriate appearance of importance. The excellence of materials and workmanship in the brick-work, presents a surface that harmonizes perfectly with the stone entablature, the string courses, &c,

PLATES XVII. XVIII.

Elevation of the South Front.

This Front is entirely of Portland stone, and is parallel with the verge of the terrace or wharf. The breadth of the wharf not exceeding the height of the building, no part of it affords a completely comprehensive view of the entire composition. From the middle of the river, or from the opposite shore, or from London Bridge, the general proportions and effects may be best observed; and at either of these stations, or at others equally distant, the structure assumes a grand and imposing appearance.

It may be proper here to advert to a considerable difficulty that was felt in designing so extensive a range of building, fixed, by necessity, to a site so limited, as not to admit the introduction of those bold projections, generally essential to produce grandeur, or breadth of effect: that was impossible, on this occasion, without sacrificing internal convenience of arrangement; which, as already observed, was a commanding consideration; but, I flatter myself, that

the composition of this façade surmounts the disadvantages of its situation. As great projections or recesses were impracticable, distinctness and variety are obtained by the general proportions, and by the distribution of the several parts, with due regard to character and to harmony. The center rises above the wings with a uniform series of colossal windows: it is surmounted by the compartments of sculpture, and the inscription; and is crowned by the group supporting the clock; while the projecting entrance to the King's Warehouse below, embellished by the recumbent statues and the Royal Arms, gives a richness, a combination, and breadth of effect to the whole, which sufficiently distinguish it.

The more minute divisions of the wings, with their colonnades on projecting basements, and the ballustrades of the attics, are perfectly consistent in their respective situations, and contribute, by contrast, to set off the magnitude and richness of the center. In consequence of the great declivity of the ground, the floor is considerably above the level of the wharf, and affords opportunity for large flights of steps, flanked by massive blocks or pedestals: these are of Craig Leith stone, which is of a much harder texture than Portland, and better able to withstand the numerous injuries to which those parts are exposed. The sculptures in general, the alto-relievos, the clock, and the royal arms, are executed in artificial stone; that substance being more durable than Portland stone, and affording sculptures much less expensive.

PLATES XIX. and XX.

Longitudinal Section of the whole Building.

As this subject may appear rather complex to many readers, from the multiplicity and variety of its parts, the description of it will enter into somewhat particular details. The Center compartment comprises, on the basement story, the lower Cellar, with the King's Warehouse over it, both vaulted with similar groined arches; the centering on which the lower ones were turned having been used for those above. On each side of the entrance to the King's Warehouse, are seen the offices for the Warehouse-keeper and the Surveyor, with their Assistants and Clerks.

The Long Room over the King's Warehouse, occupies all the remaining height; and, rising above the adjacent parts, forms a distinguished center. The central dome being higher than the other two, intercepts the tie beams of the four middle trusses, which I shall have occasion to describe more fully among the Plates of the Carpentry. The central coffer of each dome is perforated for ventilation, but the apparatus by which this is regulated, is concealed by the leaves of the flowers; and the three ventilators at the top supply a circulation of fresh air to the room, and to the interior of the roof. Contiguous to the Long Room, at each end, are the lobbies, or galleries, from the great staircases, lighted by lanterns at the top.

In the East Wing, the section plane passes through certain closets, and, on this account, I have taken the liberty, on the principal floor, of shifting it, to introduce the corridor leading to the Board Room, and to the apartment of the Commissioners. A portion of ornament is here introduced, to distinguish this suite of rooms from the generality of the building; the coved cielings are sunk in coffers, and are enriched with roses: the passage is further embellished with Ionic columns, their entablatures, and pannelled soffites. See Plate XXXIV.

The private staircase adjacent is for the more immediate communication of the Solicitors with the Board. The remaining parts of the section consist of offices, corridors, vaults, &c. and, at the top, is a lead flat, the breadth of the corridor.

In the West Wing the section plane passes chiefly through the corridor, (but not in the center of it) with the offices at the extremity. Underneath the whole, appear the footings, or foundations, of the walls, on piles and planking; with sections of the principal sewers, under the gateways.

PLATE XXI.

Section through the Great Staircase, looking Westwards.

The Basement consists of vaults, above which, to the south, is a series of offices: to the north is the Entrance Hall, with offices over it; and in the center is the staircase, with its galleries on one side, and corridors on the other. The depth of framed work in the roof of the latter, was found necessary for obtaining a sufficient declivity, in order to carry off the water rapidly.

Section through the Gateway and Area, looking Westwards.

The Ground-floor comprises the vaulted avenue leading from the street to the wharf, which is enclosed throughout; having doorways to the courts on each side, and to the interior of the building. The first doorway of this avenue marks the place of the Engine-house, which is as near to the street as convenience would allow, for the purpose of affording prompt assistance, in case of accident in the neighbourhood. Over this avenue, in the center, is seen the open area by which the interior of each wing is lighted. To the south is the Board Room, with offices over it, and corridors at the back of it. On the north side are offices and corridors. The distant parts shew the lanterns over the staircases and lobbies, with the roof of the Long Room rising above the whole. Underneath is one of the main sewers, with its communicating apertures, passing through the quay into the river. At the mouth of this sewer is a large tide-flap, or valve, to prevent the influx of water, at the time of flood, from filling and bursting the several drains. The entablature over the columns in the south front, is left hollow in the center, to diminish the pressure.

Over the main sewer a center arch is constructed, to relieve the super-incumbent weight, and abate the concussions, to which this passage is exposed: the crown of this arch is seen in this section, immediately over that of the sewer.

PLATE XXII.

Elevation of the West Front.

The same simplicity of character is designed here as in the north front, from which it differs principally in being of stone, to assimilate the better with the south elevation; it being seen in connexion with that front from most of the principal stations in the vicinity.

Section from North to South, through the Center of the Building.

The south side consists of the lower cellar, and the King's Warehouse; in which is seen the flank of the glazed partition that forms the office of the Warehouse-keeper. Above is the Long

Room, as before described. On the top of the front wall is a section of the dial-plate, and behind that are the bells on which the clock strikes the hours and the quarters. There are dials also at each end of the Long Room, which are moved by the same mechanism.

The trussed framing over the dome is shewn more at large in succeeding Plates. In the north side, on the ground-floor, is the Coast Office Long Room, which, extending itself much beyond the rooms over it, required the introduction of columns and piers, to support the insisting partition walls.

PLATE XXIII.

Transverse and Longitudinal Sections of the Coast Office Long Room,

Shewing the distribution of the piers and columns which the construction rendered necessary. The deeply-sunk soffites, the plainness and boldness of the parts, give a peculiar and not unpleasing character to this room; which much resembles the Tuscan Atrium of the ancients.

PLATE XXIV.

Construction of Truss, &c. in the Coast Office Long Room.

Fig. 1. This truss has to sustain a brick wall, and a stack of chimnies, which rise to the whole height of the building: it is, therefore, peculiarly massive in its scantlings. The weight is principally thrown on the outer wall and the column to the right, where this truss is tusked and bolted into a girder, that runs at right angles to it. The middle column bears a portion of the weight; and further assistance is derived from the head-piece, which coggs down on the plates at each end. The details are sufficiently evident on inspection.

The long girder, *Fig.* 2, serves to unite the several abutments or stone springers of the arches on which the wall of the corridor is carried; and the springing stones, being of Portland stone, are housed, or let in, on the top of the breastsummer, to fix them the more steadily.

The plan below shews the groined arches, which support the floor of the corridor of the first story.

PLATE XXV.

Truss over the Comptrolling Searcher's Office.

It having been found necessary to make a communication between the rooms at this part, after the original adjustment of the plan, the present mode of construction was resorted to, for the purpose of discharging the enormous weight over this aperture. So near to the front wall, no sufficient abutment could be obtained for an arch, under such pressure, unless assisted by a powerful tie. This is effected by a double truss, with cast iron abutments, or springers; which, embracing the two girders, and being inserted into them, prevent the possibility of lateral pressure on the walls. The inverted arch also distributes the weight of the piers through the wall beneath. The purpose of the circular rib, attached to the girder below, is merely to receive the plastered soffite of the cieling.

PLATE XXVI.

Trusses on the South Side of Solicitor's Staircase.

This private staircase, coming between the north wall and the corridor, intercepts the bearings of the several floors and roofs; the former of which being paved, and in other respects very massive, this truss is introduced to supply the deficiency of bearing obtained from the wall.

The lower truss consists of a double girder, each member of which sustains an equal degree of pressure, and is equally acted upon by the cast-iron braces; at one end they are cogged down on templates in the wall; and at the other end they are framed into a large story-post, that stands on a wall below, and also has a cast-iron abutment to lengthen and secure the bearing of the truss. The columns marked in out-lines sustain no weight, there being no supports under that part of the floor.

The upper truss serves to relieve the lower one from a part of the weight, which is distributed by the intermediate story-posts; and the construction is thus continued to the roof. The middle story-posts are cased with lath and plastering, and form antæs on the second and third floors.

PLATE XXVII.

Trussed Roof over the center of the Long Room.

As the central dome of the cieling rises many feet higher than the other two domes, it became necessary, in order to avoid raising of the whole roof, to introduce hammer-beam trusses, to gain the additional height required. In the present construction, the double timbers are let on upon the hammer-beam, so as to obtain a more efficient abutment; and they are so united at the feet, with the assistance of a kind of iron foot-strap, or socket, that the framing is not in the least liable to spread out, or to descend. An auxiliary, or minor truss, is introduced on the straining piece at the top, to afford a better resistance to the principal rafters. The feet of the trusses are framed into massive oak corbels, let down on the longitudinal framing, which also are extended to receive the bracketting of the dome. The iron cross-straps, at the intersections of the hammer-beam and inclined tie-beams, were necessary, to insure the perfect union of those parts.

PLATE XXVIII.

Trusses in the Roof of the Long Room.

Fig. 2. is the construction of the roof generally; except in the center dome, and the hips. This figure is not distinguished by any peculiarity. The tie-beams are all scarfed; being of too great lengths for any single piece of timber.

Fig. 1. is framed lower than the former, being midway in the hipped part of the roof, as is shewn in profile, in *Fig.* 4; and on this the jack-trusses have their abutment. This construction only applies to roofs of great extent; as it rarely happens that the truss at the point of the hip is too far from the end walls for the necessary timbers to be carried from one to the other. In the present case, the half tie-beam is shortened by all the distance between the two trusses, *Fig.* 1. and *Fig.* 2.

PLATE XXIX.

Trussed Framing to support the Roof of the Long Room.

The framing described in this Plate, is continued quite round the sides and ends of the room; it rests on the eight piers which sustain the whole of the roof; thereby relieving the walls, and considerably reducing the span, or horizontal extension. These frames are contained in the space over the segmental arches; and others of less substance are also carried across, at the central divisions of the cielings. Another object in thus keeping the roof independent of the walls is, to obtain a clear access round it; and for the better arrangement of the gutters. The whole series of frames is firmly united by iron straps, and rests on large oak corbels, and cross bearers on the piers: it is also further strengthened by struts from below. *Fig.* 3. and *Fig.* 4. shew the manner in which these corbels are united and applied.

PLATE XXX.

Cieling of the Board Room.

This design presents a certain degree of richness, by way of distinction from the universal plainness which pervades all other parts; still keeping simplicity in view. The ornaments distributed through this composition are in the Grecian style; and are cast in plaster, from models made under my own inspection. The whole is executed in a very masterly manner; and has been much and universally approved.

PLATE XXXI.

Section from East to West through one of the Great Staircases looking South.

The section plane in this figure passes through the upper landings, and shews the pannelled soffite, or under side of the flying stairs or bridges. The carriages of these stairs are of cast-iron; their details are explained in Plate XXXII. The steps, the landings, and galleries, are of Craig Leith stone, in very large dimensions; this material being of much greater hardness than Portland stone, and particularly well adapted for the purpose to which it is here applied, in a passage where so much friction must be expected, and provided against. On each side of the first step is a circular pedestal, surmounted by a massive candelabrum of bronze, which supports a very large glass vase of the antique model.

These staircases are very sufficiently lighted by spacious lanterns at top, the cielings of which are each of them enriched with domes of low curvature, formed into compartments, alternately perforated; and present a light and elegant appearance.

PLATE XXXII.

Iron Carriage to Center Flights of the Great Staircase.

On the general principle adopted of rendering all parts of access and communication throughout this building fire-proof, the whole of the staircases are of stone; and both the principal ones leading to the Long Room, having center flights, are sustained on iron carriages, similar to those described in this Plate. The springing and abutments in the north and south

walls, are formed by large stone lintels, the whole thickness of the wall; into which the dove-tailed ends of the bearers are inserted, and run with lead. The whole is further united and secured with bolts passing through the wall, and screwed up on the other side. The stone steps and landings are laid upon the iron work, and joggled together: they carry the ballustrade and hand-rails in the usual manner. The soffite or under side of this flight is formed into sunk pannels in plaster work, with mouldings, by means of wood bracketting, which is attached to the iron ribs by fillets projecting from their sides. The manner in which the different parts of the iron work are united and fixed, is sufficiently apparent on inspecting the Plate.

PLATE XXXIII.

View of the Long Room.

This room, one of the largest in Europe, the roof of which has no intermediate support, is occupied for the transaction of the greater part of the business requiring public intercourse. Its most interesting appearance is at a time when many hundreds of persons of every description and nation are here assembled, and busily engaged in discharging their several affairs. The counters and desks which surround the room, are occupied by the officers and clerks of the Revenue; they preserve a uniform appearance externally; but are variously distributed internally, according to the different conveniencies required by each individual. The area of the room is paved with remarkably large slabs of Scotch stone; and within the enclosures are boarded floors for the accommodation of the occupiers. In the center are three large circular desks, for the convenience of the public, which are not shewn in this view. The great space which this room encloses, comprising an area of not less than 150,000 cubic feet of air, is effectually warmed to a pleasing temperature, by means of the two air stoves, seen in their proper places, at proportionate distances from each entrance, and from the center of the room. The perfect efficiency, and great economy of this arrangement, is so remarkable and striking, that I conceive it proper, for the information of those who may have occasion for similar conveniences, to explain the particulars of their construction.

Description of the Stoves.

That part of the construction properly to be termed the Stove, consists of a long case formed of cast-iron plates, containing separated air chambers; these are exposed to the action of two distinct recipients, or fire-places, each eighty inches in area, and ten inches deep. The cold air is admitted into this case at the bottom; and acquires heat by contact with the numerous surfaces of the plates forming the air-chamber, the recipients, &c. through the whole system of which the air passes; and when in this highly rarefied state, it rushes out at the top with great velocity through three vertical tubes; being also impelled in its course by the succession of cold air entering from below with considerable rapidity, to supply the place of that discharged in a state of rarefaction. The amount of this discharge, or the quantity of air rarefied, is proportionate to the quantity of fire maintained, and to the height of the discharging tubes; as the height of these tubes contributes to the more powerful and effectual action of the machine; while the pressure of the air entering from below continues the supplying current with undiminished velocity.

Under the floor, having its upper plate level with the pavement, is a horizontal flue of cast-iron, through which the smoke passes off, and is carried into the chimnies in the piers. Cavities are left on each side of these flues, and covered with perforated plates of iron, by which all the

heat communicated to the sides and top by the passing smoke, is transmitted into the room; and none is allowed to be absorbed by the surrounding materials. These stoves are not limited by any local circumstances; neither are they affected by currents or gusts of air, as the rarefying process continues without intermission while the action of a supply of cold air can be obtained; and this is distinctly derived by each stove, from the principal entrance at that end of the room near to which it is situated: being thus supplied from separate sources, they both act independently, and without affecting each other in any manner or degree.

Two stoves have been found sufficient to warm the room to an even and pleasant temperature; and the total expense of fuel, attendance, cleaning, and keeping in repair, is, by agreement, no more than *5s.* 10*d. per diem.* To the outer case, in which the apparatus is enclosed, is given the form of a pyramidical altar, surmounted by very large and handsome bronze lamps; forming together a pleasing object, and contributing to the general effect of the room.

PLATE XXXIV.

View of the Corridor to the Board Room.

The ornamental parts observable in this View, form an exception (as has already been stated) to the general plainness of character maintained throughout this building. The whole of this corridor being exclusively reserved for the Commissioners, and no public transit being allowed, it was thought proper to distinguish it by the mode of finishing adopted.

The columns are formed in stucco, on upright lathing, having stone bases, and plaster capitals: the flowers and other ornaments are also of the latter material.

Two excellent Portraits, of His Majesty, and of His Royal Highness the Regent, painted by Sir Thomas Lawrence, will be placed over the fire-places in the Board Room.

PLATE XXXV.

Internal View of the King's Warehouse,

Shewing the supporting pillars, the groined arches, the effect of the method of vaulting, with the general forms and appearance of the whole.

PLATES XXXVI. XXXVII. XXXVIII. XXXIX.

These Plates include the series of ornamental figures introduced in the Eastern and Western compartments, which embellish the entablature over the front of the Long Room.

In the center is the following inscription:—

ERECTED IN THE YEAR OF OUR LORD 1817, IN THE 57TH YEAR OF THE REIGN OF KING GEORGE III.

The compartment on the Eastern side of this inscription represents Britannia seated in her marine car, attended by Strength, Justice, Naval Power, and Victory; this group forms the center. On the right hand of Britannia, Philosophy is introducing Jurisprudence, Mathematics,

Chemistry, and Navigation,—sciences indispensably necessary to the prosperity of an insular power, whose establishments and colonies are found in all parts of the World, and whose vessels circumnavigate the Globe. Following the Sciences are the Virtues—Charity, Hope, and Faith, Temperance, Fortitude, and Prudence. The Polite Arts are ranged on the left hand of Britannia, where Wisdom and Genius are leading on Painting, Sculpture, and Architecture: History and Astronomy are placed in succession to these: and the composition closes by the sister Muses, in company, whose various offices and employments allude to the elegant and refined studies, in all their branches.

The compartment on the Western side of the central inscription represents, as a leading and general idea, by a group in the center, the four quarters of the Globe, Europe, Asia, Africa, and America, offering their commodities to the British Empire, symbolized by natives of the three Kingdoms. On each side of this principal group are placed inhabitants of the various countries which have formed mercantile connections with Britain: these are dressed in their various costumes, as representatives of their respective nations;—Abyssinia, Africa, Arabia, Brazil, Cabul, Canada, China, Egypt, Hindostan, Holland, Japan, Lapland, Pennsylvania, Peru, Poland, Prussia, Russia, Saxony, Spain, Turkey, &c. &c. These characters, or personages, are promiscuously grouped, to shew the intermingling nature of commerce, which promotes universal intercourse, and gives and receives whatever is wanting, or whatever can be furnished by every people, without exception; and, in fact, such representatives of various nations do assemble, indiscriminately, in this public Edifice.

The prevailing intention of the general allegory is to shew, that commerce, founded on public protection, and guided by rectitude, virtue, and knowledge, produces that opulence which encourages and supports national elegance, and the arts, in their various departments: while, in return, the arts, in their various departments, contribute to furnish fresh materials for the operations and employment of commerce; to the great convenience, emolument, and civilization of all nations throughout the Globe.

PLATE XL.

Figures over the Entrance to the King's Warehouse.

The sitting figure placed over the Western extremity of the entrance to the King's Warehouse, is Britannia. She is distinguished by her shield, embellished with the cross of St. George; on her head a helmet; and, while she grasps in her right hand the spear of defence, she rests her left hand, in which she holds an olive branch, on a globe, expressive of her desire to extend the blessings of peace to all the world. The caduceus marks her commerce, the cornucopia indicates the result of that commerce in wealth and plenty; the British Lion hints at the power and readiness of her protection, and the general interest taken by the nation at large in the welfare and security of the commerce issuing from and returning to the port of her Capital.

The figure placed over the Eastern extremity of the entrance to the King's Warehouse, represents Neptune, armed with his trident, recumbent on a sea-horse.

Over the center of the entrance is the Royal Arms, marking the authority which gives efficacy to the business transacted in the general establishment, and not less efficaciously felt in this department.

PLATE XLI.

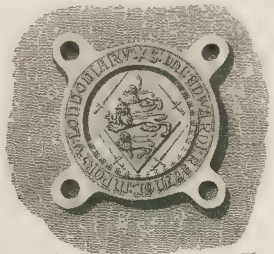
Central Figures surmounting the Entablature of the South Front.

The dial of the clock is encircled by a wreath of British oak leaves; and is crowned by a shell, which rising above the whole, terminates the composition. On each side of the clock-plate is seated a colossal figure; the male figure to the left represents Industry, characterized by the sickle he holds in his right hand, and by the bee-hive at his feet. The female figure seated to the right, represents Plenty, contemplating the contents of her cornucopia, the natural consequence, and the most effectual reward of industry.

All these figures are executed in artificial stone; a material which, although composed of various ingredients, may be described as a species of *terra cotta*. It combines into one mass pipe-clay, flint, sand, glass, and stone ware, that has already passed the furnace. These are ground to a very fine powder, are mixed in proper proportions, and the whole is well kneaded together, by means of the addition of water. In this state it forms a kind of paste, which has the ductility of the clay usually employed in modelling: it is now wrought into the form desired, in the same manner, and with the same precautions, as other clay; and, when finished, is left to dry gradually. When thoroughly desiccated, the performance is placed in a kiln, where it undergoes an intense white heat; and, being suffered to cool slowly, it is now complete.

The principal intention of this composition is to resist the ravages of Time, which it does beyond any kind of stone that can be worked by the chisel; being also susceptible of all the advantages attending casts obtained by means of moulds, it furnishes, at a comparatively small expense, whatever is required in repetition, or in great numbers; because, the pattern once made serves for any quantity.

It is certain, that the antients, from very early ages, adorned their buildings with devices in *terra cotta*, obtained from moulds; and these, when not broken by violence, have preserved, during thousands of years, the designs imparted to them, with greater fidelity and sharpness than most kinds of stone; but it does not appear, that any composition of the nature of artificial stone was employed by them, to ensure that hardness, and power of resisting the corroding properties of the atmosphere, which this material possesses in an unequalled degree.



Silver Seal found in the River Thames AD 1810

LITTLE TOWER STREET
GREAT TOWER STR
MINCING LANE
ST MARI HILL
ST DUNSTANS HILL
HARP LANE
St DUNSTANS CHURCH
Cemetery
PROPOSED NEW
WEST WING
Carriage Way
PROPOSED NEW CUST
Coal Exchange
LOWER THAMES STREET
NEW CUSTOM HO
Gun Tavern
Room Land
Proposed Warehouses
DOCK
COVERED WAY FOR L
BILLINSGATE DOCK
BILLINSGATE
RIVER TH

PLATE 12

GENERAL PLAN *of the Streets, Quays and Warehouses in the vicinity of the* **OLD CUSTOM HOUSE** *shewing the site originally proposed for the* **NEW CUSTOM HOUSE,** *to rebuild the Wharf wall recalineas instead of Embanking into the River*

100 90 80 70 60 50 40 30 20 10 | 100

J Taylor Hab Roberts

LITTLE LISTHILL
LITTLE TOWER STREET
MINCING LANE
GREAT TOWER S
TOWER LANE
ST MARY HILL
ST DUNSTANS HILL
HARP LANE
ST DUNSTANS CHURCH
Cemetery
Bakers Hall
Proposed Line
Coal Wharfings
LOWER THAMES STREET
THE NEW CUSTOM HOUSE
Gate Tavern
Room Land
BILLINGSGATE
RIVER THAM

MIDDA LANE
E E T
G R E A T T O W E R S T R E E T
SEARING LANE
L A N E
Old Trinity House
W H A R F
L A N E
R E E R
L O W E R T H A M E S S T R E E T
New Warehouses as Proposed
Mary Porters Quay
Galley Quay
Custom Quay
Brewers Quay
T O W E R D O C K

GENERAL PLAN *of the Streets Quays and Warehouses in the vicinity of the* ***NEW CUSTOM HOUSE.***

shewing the proposed enlargement of the Streets and Avenues leading to it.

S

Dan.l Laing Architect &c.

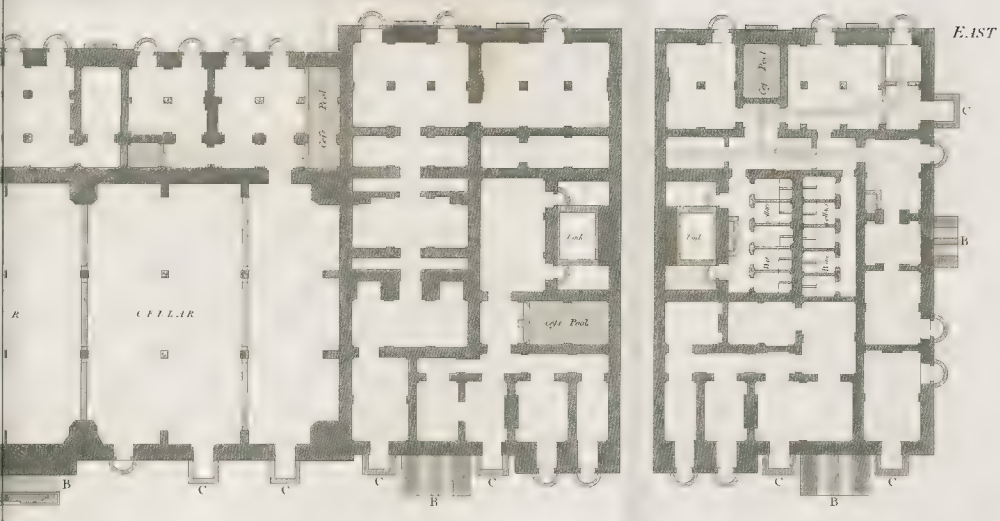
J. Taylor High Holborn

CUSTOM HOUS

Plan of the Bas

LONDON

ENT FLOOR.



CUSTOM HOU

PLAN OF THE

WEST

PLATE 7.

E, LONDON

OUND FLOOR

EAST

CUSTOM HOUS

PLAN OF THE

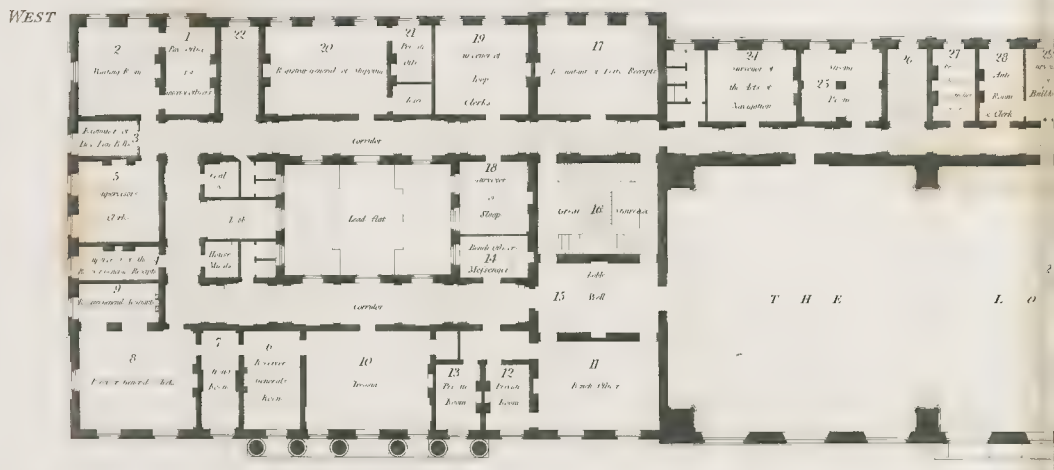


PLATE 4 B

LONDON

ST FLOOR

EAST

Corridor
Lead flat
Lead flat
Lead flat

CUSTOM HOU

PLAN OF THE

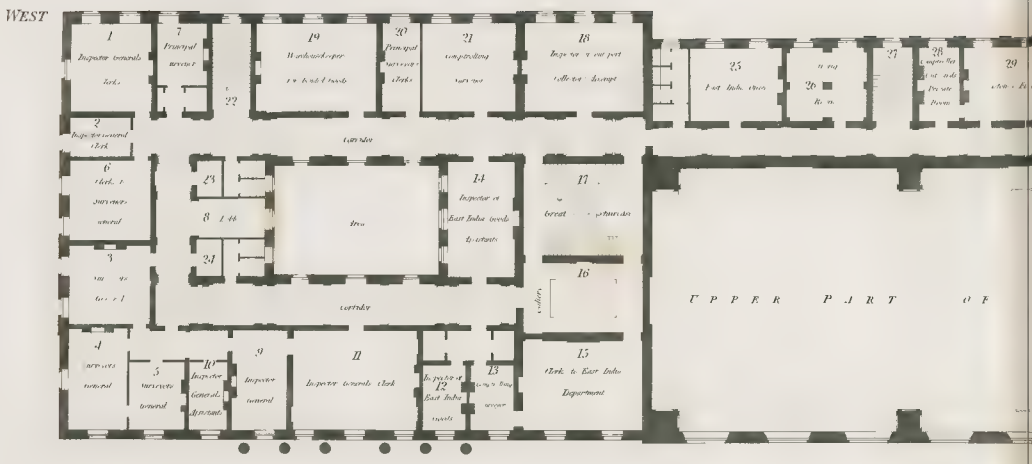


PLATE II

2. LONDON

COND FLOOR

Scale of Feet

Thomas Wyatt del. & Dirx.

CUSTOM HOU

PLAN OF THE

WEST

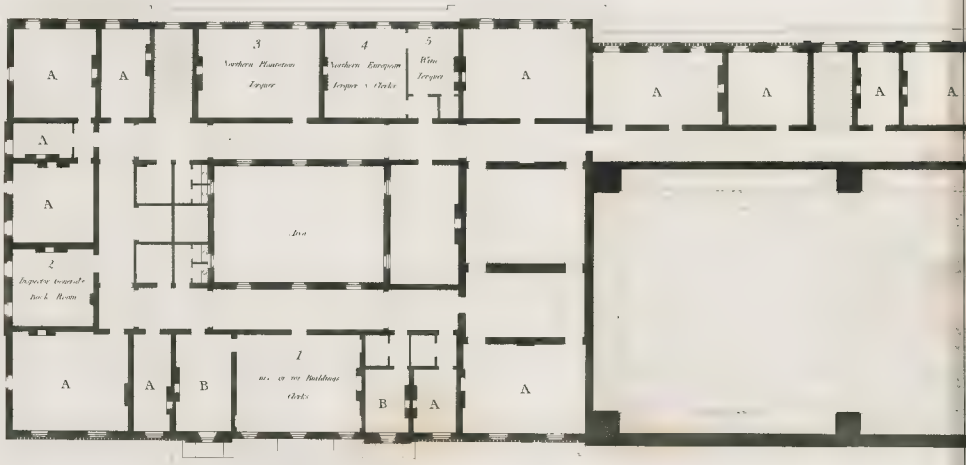


PLATE [illegible] 14

E, LONDON

HIRD FLOOR

EAST

Feet

Darton Heath Hollows

CUSTOM HOU

NORTH EL

London Published June 1, 1817

Pl. II

LONDON

ATION.

Engraved by James Jarvis

CUSTOM HOU

SOUTH E

London Published June 1st

E LONDON

VATION.

Engraved by James Deans

J Taylor High Holborn

CUSTOM HOU

SECTION FROM

E, LONDON.

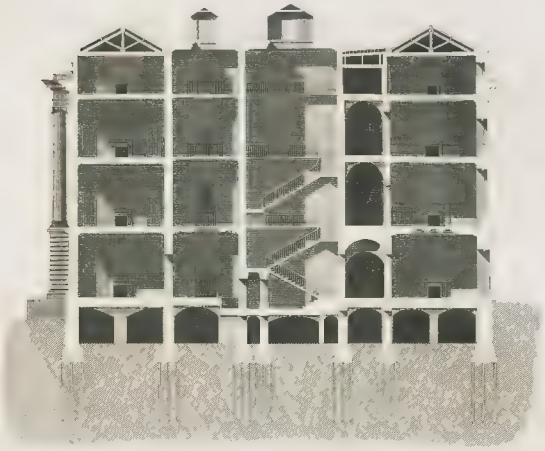
NT TO WEST

Jn. J. Taylor High Holborn

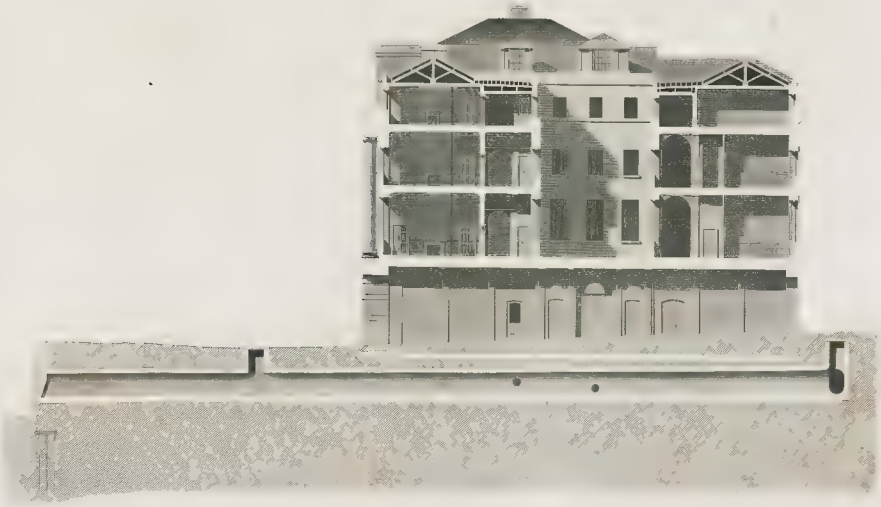
Le Inate

CUSTOM HOUSE, LONDON.

SECTION ACROSS THE GREAT STAIRCASE, on the line a b Plate 7 6



SECTION THROUGH THE GATEWAY, on the line c d. Plate 7.8



London Published June 1st 1817 by J Taylor High Holborn

CUSTOM HOUSE, LONDON.

WEST FRONT

SECTION FROM SOUTH TO NORTH, on the line e f ___ Plate 7.8

London Published Aug^st 1st 1827 by J Taylor High Holborn

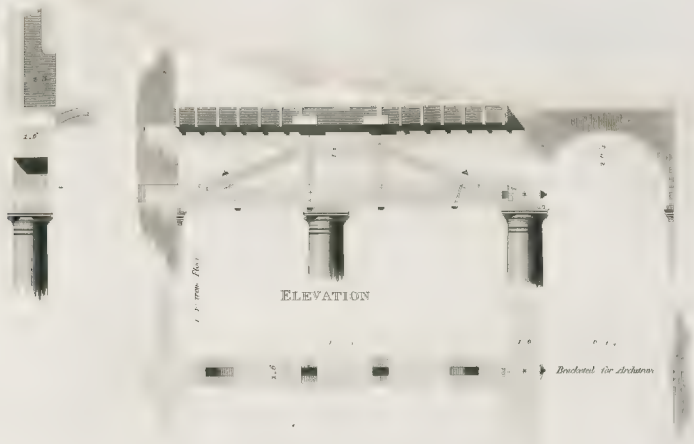
COAST OFFICE LONG ROOM.

TRANSVERSE SECTION

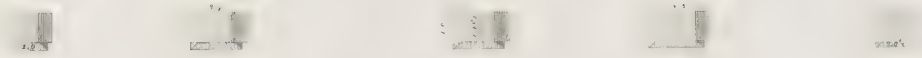
LONGITUDINAL SECTION

London Published Jan.ry 1817 by J. Taylor High Holborn

COAST OFFICE LONG ROOM.



PLAN OF TRANSVERSE GIRDER TRUSSES.

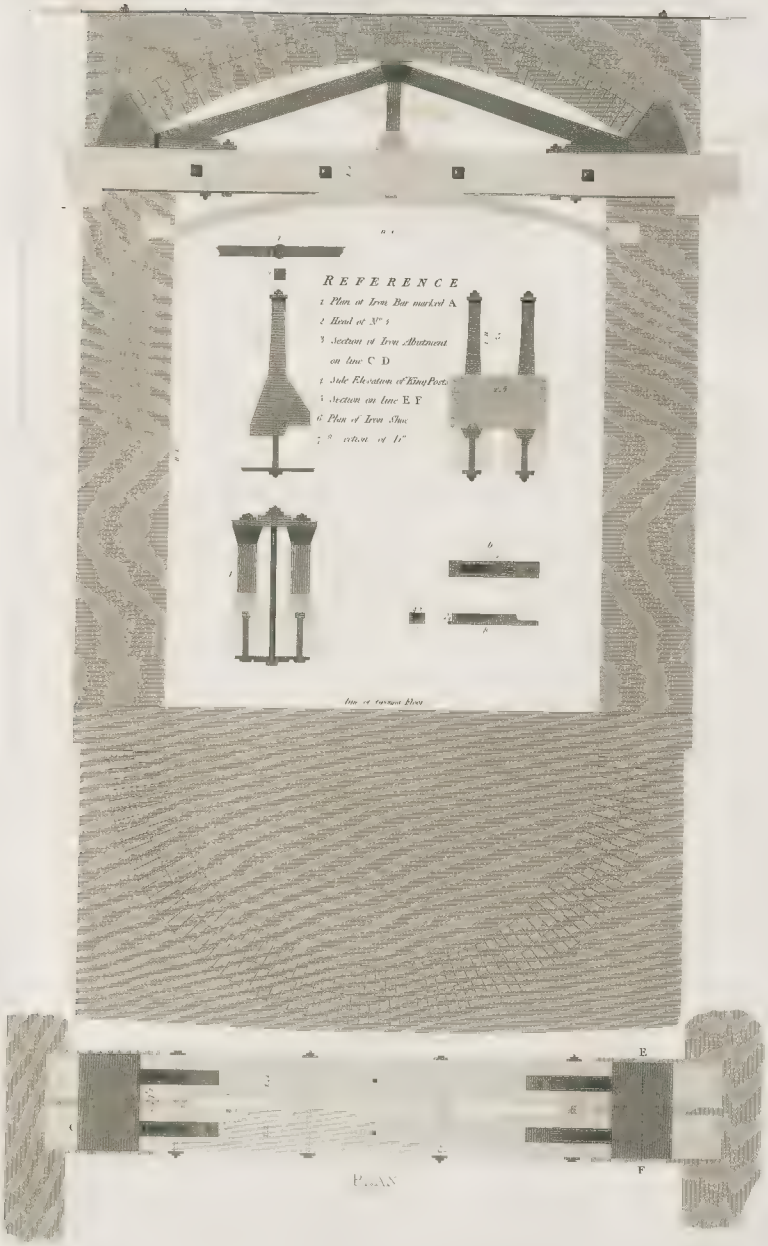


TYPES OF SPRINGING STONES.

PLAN OF LONGITUDINAL GIRDER AND BRICK GROIN.

London Published Aug.st 1825 by J. Taylor High Holborn

ELEVATION


REFERENCE
1 Plan of Iron Bar marked A
2 Head of N° 1
3 Section of Iron Abutment on line C D
4 Side Elevation of King Post
5 Section on line E F
6 Plan of Iron Shoe
7 & 8 extent of A"
Line of Carriage Floor
E
F

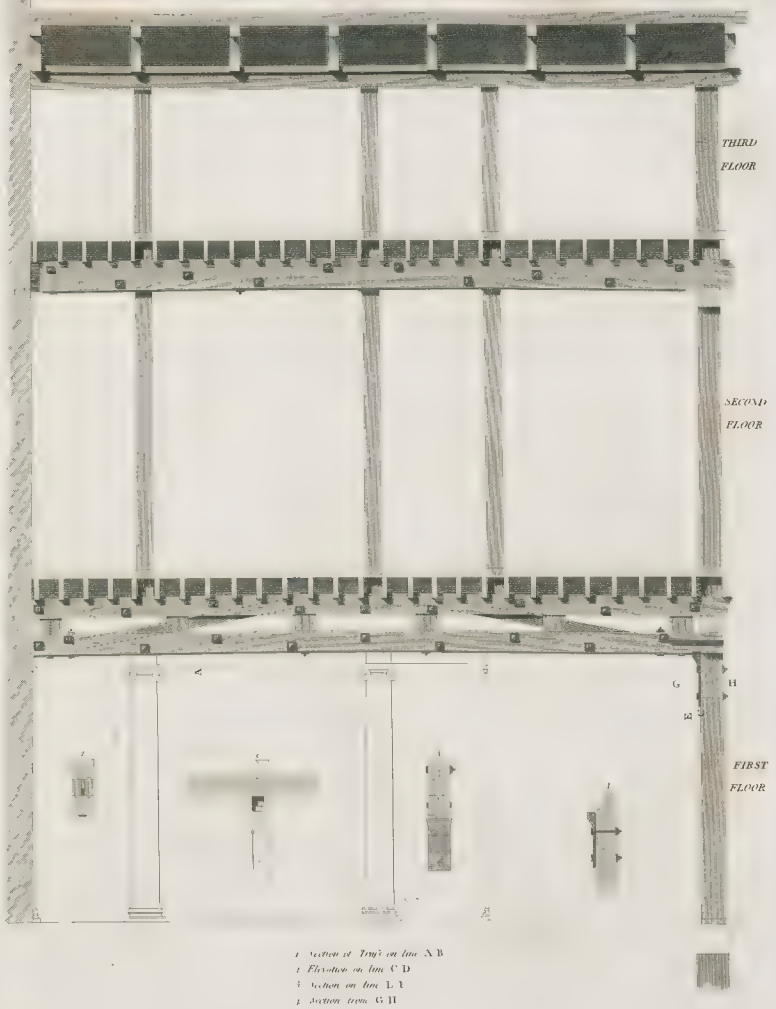
PLAN

TRUSS OVER COMPTROLLING SEARCHER'S OFFICE.

London Published Aug.st 1810 by Thos. Hosking High Holborn

EAST WING.

TRUSSES SOUTH SIDE OF SOLICITOR'S STAIRCASE.



1 Section of Truss on line A B
2 Elevation on line C D
3 Section on line L I
4 Section from G H

London Published August 1st 1817 by J. Taylor High Holborn

TRUSSED ROOF.

OVER THE CENTRE OF THE LONG ROOM

REFERENCE.

Fig 1. Elevation of Truss

2 Plan of D on Line A B

3 Plan on Line C D

4 Plan of top of Corbel

5 Section of D on Line E F

6 Elevation of Foot of Truss at a larger Scale

7 Plan of wrot Iron strap to D

8 Section of Tie

9 Elevation of wrought iron Strap which connects the inclined Tie Beam to the Hammer Beam

10 Plan of strap

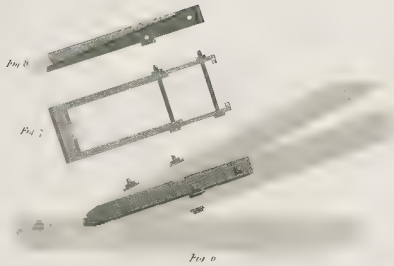


Fig 8

Fig 7

Fig 6

Fig 10

Fig 9

Fig 1

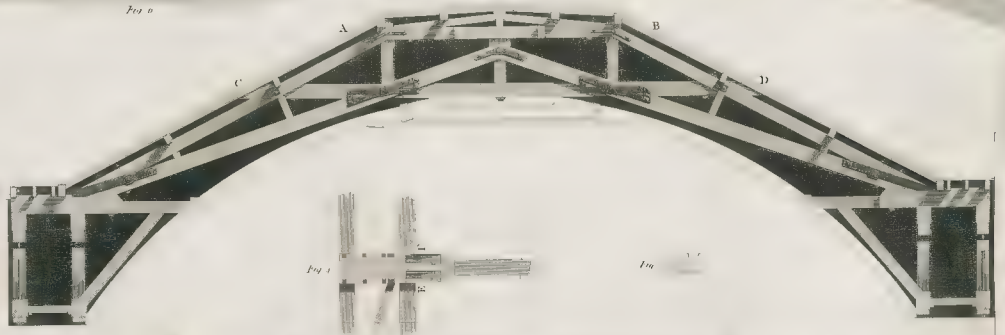


Fig 4

Fig 2

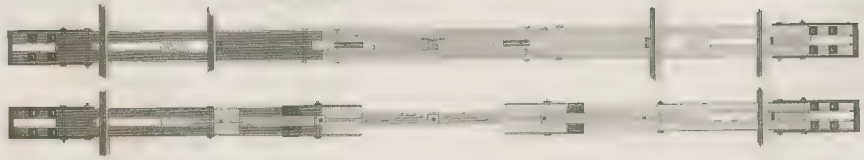


Fig 3

Fig 5

TRUSSES

IN ROOF OF LONG ROOM.

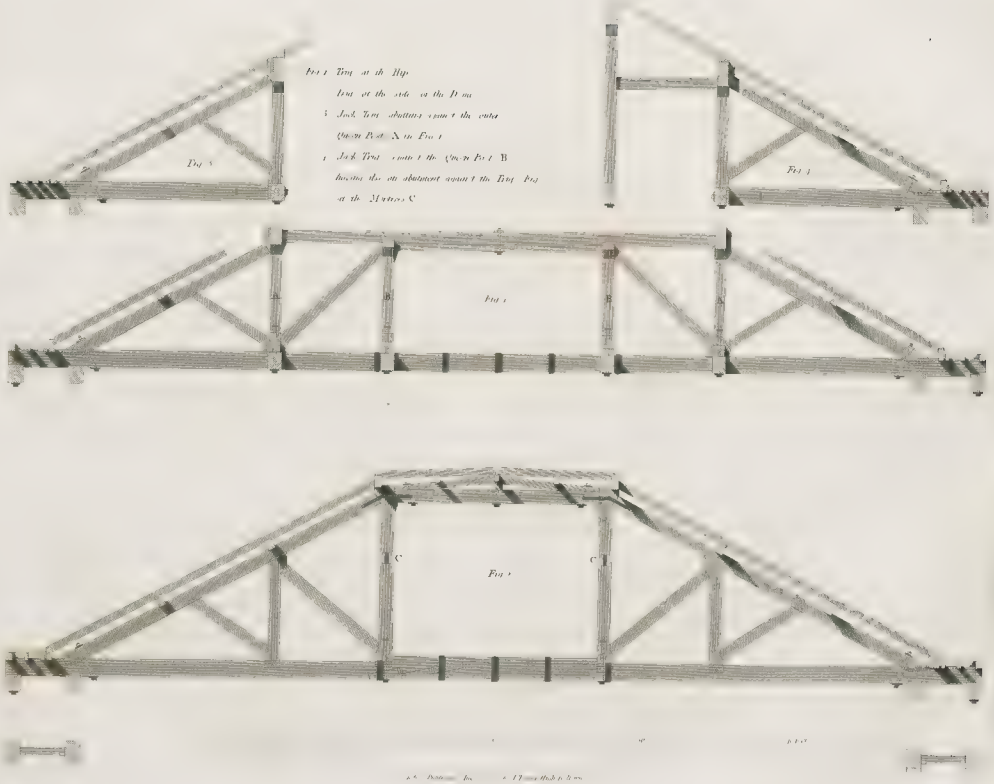
Plate

Fig. 1 Truss at the Hip

Joint at the side on the Plan

2 Jack Truss abutting against the outer Queen Post A in Fig. 1

3 Jack Truss against the Queen Post B having the an abutment against the Truss Fig. at the Mutules C

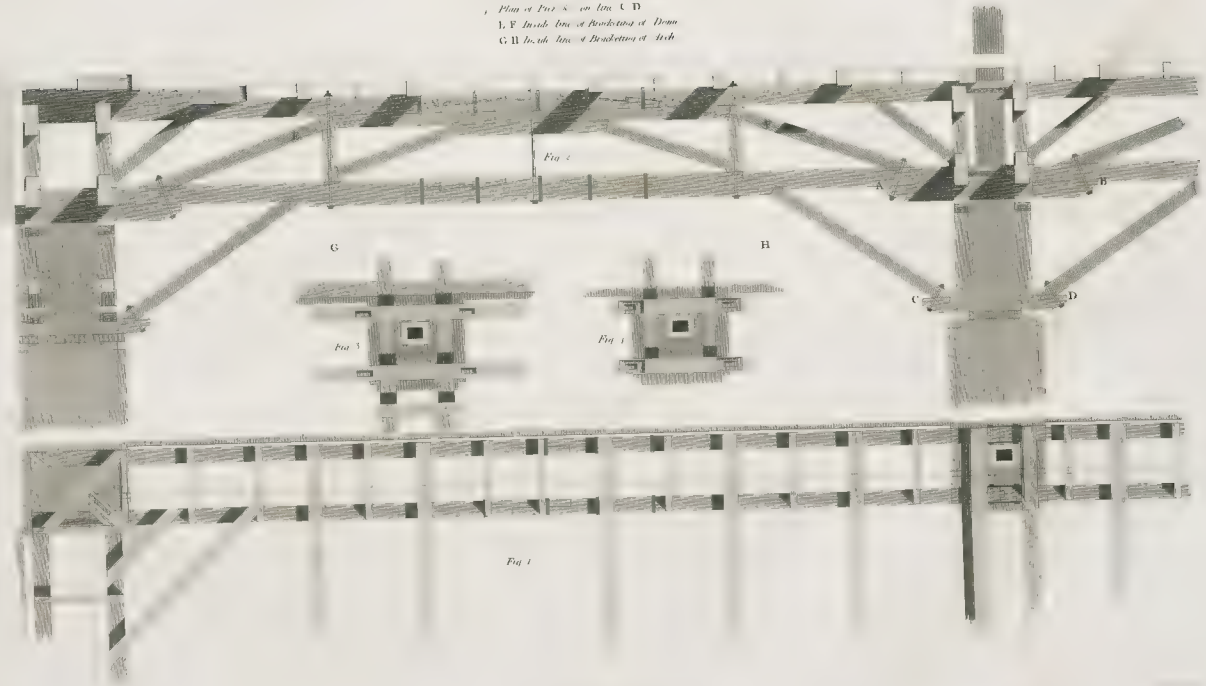


TRUSSED FRAMING.

PLATE 79

TO SUPPORT ROOF OF LONG ROOM.

Fig 1 Plan of Trusses with the Beams Tie Beams &c
2 Elevation of D
3 Plan of Part and Side Cheek on line A B
4 Plan of Part on line C D
E F Inside line of Projection at Beam
G H Inside line of Bracketing at Arch

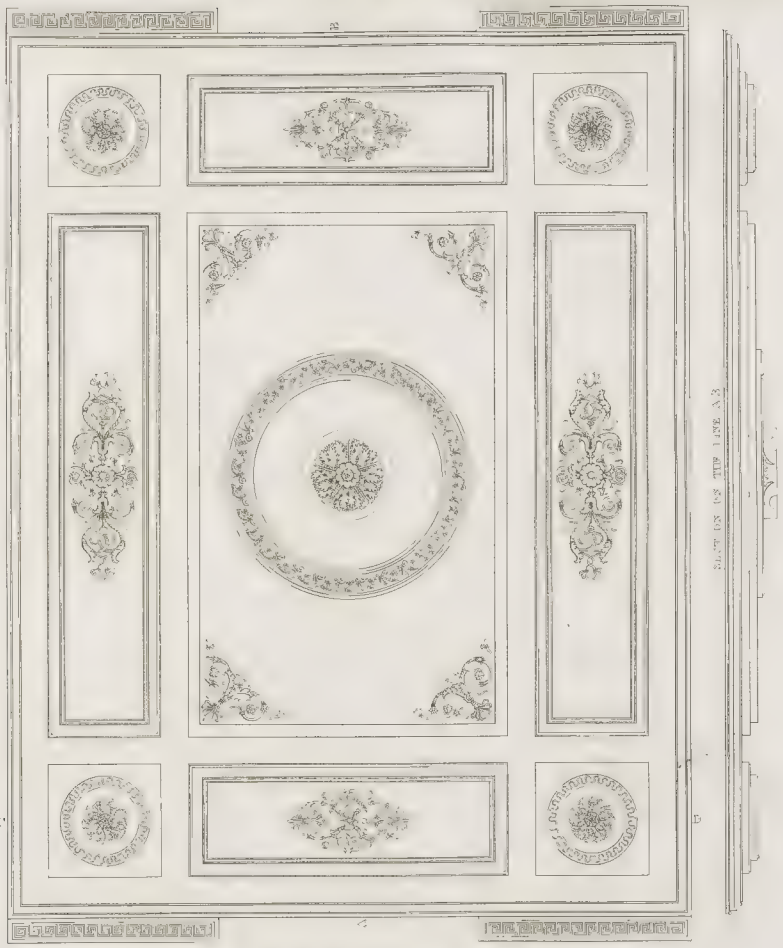


London Published 1st ... by W. Taylor Peak Holborn

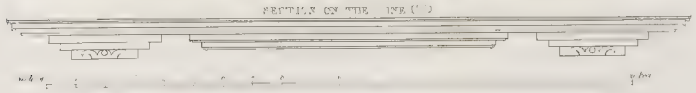
CEILING TO THE BOARD ROOM.

PLATE 30

FRIEZE AND CORNICE OF THE SAME.



SECTION ON THE LINE A B



SECTION ON THE LINE C D

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PLATE 9

Section of the great Staircase

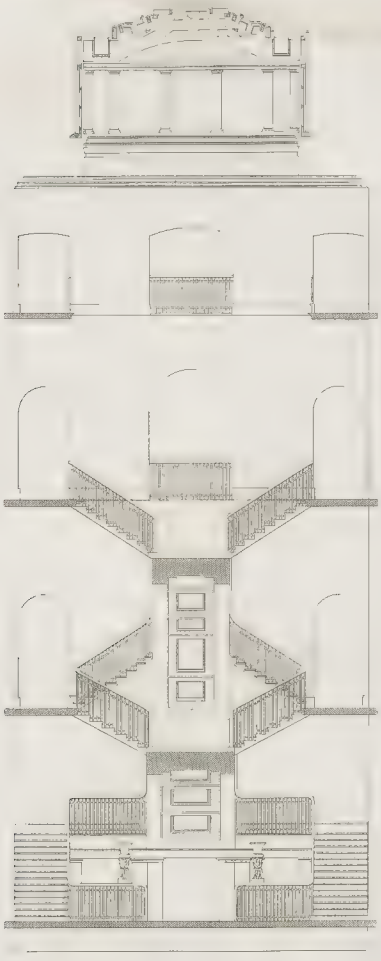


Fig 1 Plan of the upper flight
2 Elevation of one of the inner Ribs of the upper flight
3 Section of the Iron carriage at R S Fig 2
4 Plan of Iron for Bolts to pass through to tie the Ribs to the Wall at Abutment Q Fig 1
5 Section at T U Fig 2
6 Elevation of Washers for the Bolt at N Fig 1
7 Elevation of Washers at the Abutment V Fig 1
8 Elevation of Iron Work pass'ing through the Rib at O Fig 2
9 Elevation of one of the dovetailed Bars which connect the outer Ribs V Fig 2
10 Elevation of Iron Bar at Abutment W Fig 1

Fig 6

Fig 8

Fig 1

Fig 2

Fig 3

Fig 7

Fig 9

Fig 10

Fig 4

N V O V V V V Q W P

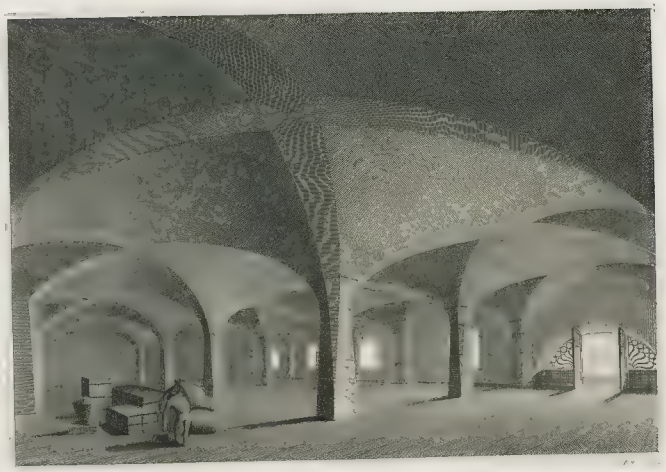
London Publ. by J. Taylor High Holborn

View of the Long Room

London Publ. by W. H. Thomson

View of the Arches taken near the Great Room

London Publ. by J. [illegible] Tower Hill St. Hers.



Vaults of the Kings Warehouse

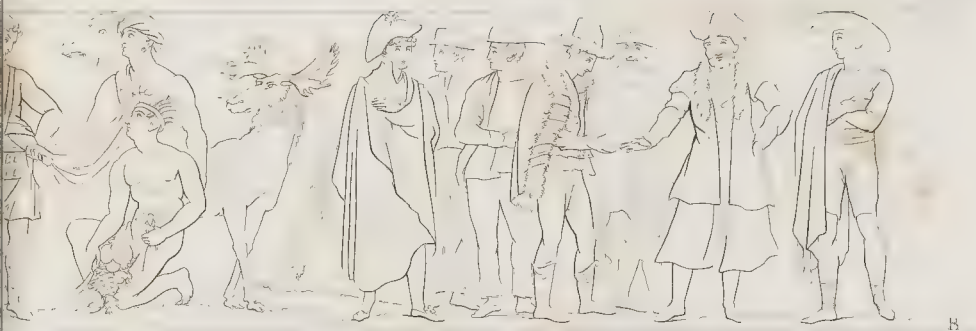
A

A

B

B

Apartment . South . Front



B

A B

Isaac Taylor .

Steps over the entrance to the Kings Warehouse.

PLATE 81

Central figures on the top of the South Side

Jno Taylor sculp

Published by J. & A. W. Young, Nº 1 Bow Street, Covent Garden

PART THE SECOND;

CONSISTING OF

PRIVATE AND MISCELLANEOUS DESIGNS:

INCLUDING ALSO,

THE DESIGNS

FOR REBUILDING THE PARISH CHURCH OF ST. DUNSTAN IN THE EAST.

In this selection of my more humble labours, the reader will not expect to meet with any designs comparable, or companionable, to what he has already inspected. The superintendence of such important buildings as the Custom House, occurs but once in a man's life; and indeed, that may be distinguished as the largest and most considerable edifice which has been erected, at once, in our time. Nevertheless, I hope, these minor structures will be found not wholly devoid of interest; if they cannot assume distinction as being singularly ornamental, they may aspire to the praise of being suitable and respectable; and if they cannot boast of magnitude or magnificence, they may justly claim the merit of promoting health, comfort, and convenience.

The greater number of these designs has been executed in various parts of the Kingdom; but some of them in foreign countries. I have also added one or two, although not yet erected; presuming that they take their place among the others without disparagement to the general series.

The taste of modern times, in reference to the appearance and construction of that respectable class of buildings known under the name of Villas, is beyond all question greatly improved from that formerly adopted. The accommodations demanded are also superior in kind, in arrangement, and in elegance. The public is more than ever enlightened on the subject. The first duty of an Artist is certainly to give satisfaction to his employer; and to this he will direct his talents and his labours: if beside, he is so happy as to conciliate the suffrages of the judicious, he has abundant reason to congratulate himself on his good fortune, and to acknowledge his obligations to the candour of his judges.

The introduction of the Designs for rebuilding the Church of St. Dunstan in the East, it is presumed, needs no apology. Opportunities for practically studying the effect of Gothic structures, are rare in modern times; and on this department of Architecture we are obliged to consult the examples left us by our predecessors in former ages; nor is it the least part of our duty to acquaint ourselves with what they thought proper and suitable to the subject under their direction. This consideration will, it is hoped, sufficiently justify the labour and anxiety attending the attempt to ascertain the antient history, character, and establishment of the original edifice, the general result of which is presented to the reader.

PLATE XLII.

Elevation and Plans of a Villa, erected at Lavender Hill, Battersea Rise, near Wandsworth, Surrey.

This Villa is situated on a beautiful eminence, forming part of a healthful spot of ground; commanding good home views from every aspect.

All who have considered the subject of aspects, agree as to the propriety of placing the entrance on the Western side of an edifice, where it is not forbid by local inconvenience. I have observed this particularly in the present Villa; and the advantages derived from it are very evident.

PLATES XLIII. XLIV.

Elevatinos and Plans of a Villa, intended to be erected for Mr. Macculloch, at Guernsey.

The Lawn front of this Villa is placed 15 degrees East of the West exposure. This deviation from a principle already alluded to, was rendered necessary by the peculiarities of an insular situation; and, in consequence, each front is sheltered from a direct exposure to the Sun, from the time of its rising till noon; while oblique fronts are presented to the northerly and the easterly winds; against which it was necessary to guard, as being equally unpleasant and unwholesome in a marine district. The style of the House is a plain undecorated gothic; the East and West fronts are rough-cast; and the roofs are thatched:—the whole in harmony with the general scenery and situation. My principal study has been interior convenience; I have therefore formed a Loggia under the Landing of the Stairs, which conducts to, and communicates immediately with, every principal room on the Ground Floor: of these there are four: and on the Upper Story are five best chambers, with dressing-rooms, and other suitable conveniencies.

PLATES XLV. XLVI.

Elevation, with a Plan of the Principal Floor, of a Mansion and Offices, constructed for J. Retburgh, Esq. at Brunswick, in Lower Saxony.

The dwelling part of this Mansion stands quite insulated from other buildings; it is surrounded by a dressed lawn, and is connected with, but not incommoded by, the offices, which are concealed from all the principal views. The intercourse of the offices with the dwelling is provided for by means of a communication under cover.

PLATE XLVII.

House erected for General Taylor, Ireland.

The character which I have endeavoured to give to this design, is that of chaste and plain simplicity. The entablature is continued without a single perpendicular break. The best Rooms, which are placed in the back front of the house, are three feet higher than those in the principal front.

PLATE XLVIII.

VILLA ERECTED AT COLEY PARK, NEAR READING, BERKSHIRE, THE SEAT OF JOHN M^CONNELL, ESQ.

This Mansion, which possesses considerable interest from its situation, is erected with materials selected from the best of those which had been employed in a former residence, that stood in a low and inconvenient part of the Park; where scarcely any view could be obtained from the house. The spot chosen for the new Mansion is in every respect the best part of the estate; being situated on higher ground, yet sufficiently sheltered; and at the same time, commanding extensive and interesting views.

PLATE XLIX.

VILLA ERECTED IN THE ISLAND OF JERSEY, FOR J. EMERY, ESQ.

The subject of this Plate attempts to unite a character of simplicity and plainness, with some attention to appearance. The most interesting views obtained by this Villa, are indicated by the disposition of the windows to the principal rooms.

PLATES L. LI.

ELEVATION OF A RESIDENCE ORIGINALLY INTENDED FOR STEPHEN TEISSIER, ESQ. AT DEDHAM, IN ESSEX; WITH PLANS OF THE GROUND FLOOR, AND OF THE CHAMBER STORY.

This Villa was designed for an eminence commanding delightful home prospects; but the execution of it was laid aside, in consequence of the tenure of the ground on which it was intended it should stand; that being copyhold, which could not be enfranchised. A house and offices were therefore erected on a different site by me; in conformity to a plan adapted to the local situation. I have omitted this latter design, because I consider it as being imperfect; inasmuch as the first intention was to improve an old building by various additions, and alterations; but during the progress a resolution was taken to renew the whole. A circumstance exactly similar occurred in the early part of my practice, at Abbott's Langley, Hertfordshire; where I erected a house and offices, with barns, stabling, &c. for the late Griffith Jones, Esq.

The entrance is through a vestibule, eight feet high, under the center flight of stairs, which is here purposely concealed: a hall of good size and proportions occupies the center of the building, and is lighted through a circular well, by a lantern. The approach to the dining and drawing rooms is from the semicircular end of the hall. Corresponding doors in these rooms lead through a loggia to the lawn, which is flanked on each side by terraces, and light colonnades, forming an enfilade, or vista, terminated by a statue at each extremity. This loggia forms a convenient interval between the two rooms and the garden, to which it affords a ready and easy access: but it may be observed, that it is extremely difficult to render sash doors effectually proof against some of the inconveniencies always to be feared from the cold and rain of this climate. The greenhouse is in view from the library and study; but is separated from them by a lobby and area, in order to exclude the damp smell, which, without the greatest care, cannot be prevented from rising. By bringing the sashes as low as the skirting, the greenhouse appears to belong to those rooms, and incorporates with them. An aperture of stained glass is proposed in the recess dividing these rooms, to produce a two-fold effect, heightened by the

reflections of the variegated hues on the glass over the chimnies at each end of the rooms, when illumined by lamps pendent from the center of each ceiling. It may be observed here, that a judicious position of plate-glasses, obtains the enjoyment of scenes and objects, which are not otherwise brought into view. The columns in the recesses were intended to be of scagliola; and the walls to be incrusted with light Sienna marble plaster.

The staircase being entirely concealed on the lower floor, the remaining, or center flight of stairs, only becomes visible from the landing of the first story; which presents a ready access to each room (five chambers, with light closets; a boudoir, light closets, and dressing room) on this floor, being in the middle of the building. The landing may be available as a picture-gallery. The circular aperture in the ceiling is proposed to be enclosed with horizontal stained glass, illumined through a concealed skylight, thereby diffusing a pleasing brilliancy, whether viewed from the hall, or from the landing on the first story. I have carried this into effect in a dwelling which I altered; and the result proved very satisfactory.

An attic story, partly enclosed in the roof, provides ample space for the servants' dormitories.

PLATES LII. LIII.

Design for a Villa intended to be constructed for a Lady in South Devon.

In the arrangement of this Plan, a great variety of forms is introduced, without violating convenience and economy: the diversity of outline by this combination gives an interesting appearance to the exterior, while it shews that regular buildings may produce pleasing and picturesque effects, yet may be, at the same time, perfectly symmetrical and convenient.

I have always attempted to obtain a view of as great a proportion of the interior as possible from within, presuming, that all which is under the roof should be as much as may be within range of the eye, for convenience of the head of the family; and for the obvious accommodation of such arrangements: this diffuses a general cheerfulness of effect, with a pleasing change of lines, lights, and shadows, still further diversified by their reflections of tints and colours.

The entrance front embraces a more extended range of elevation, than if it were confined to rectangular forms; while it covers the same space of ground. This varied outline produces corresponding variations in the forms seen in the different aspects presented, and in whatever effects depend on the lights and shadows, &c.

The Saloon is circular, and is ornamented with a peristyle including columns, or pedestals, and statues; between which, without interrupting the series, are approaches to the chief rooms.

The Portico in front, by terminating on the conservatories placed in each flank, produces a novel effect; and may be brought into view from windows over the chimnies of the Dining-room and Library.

Colonnades are introduced in the Lawn-front for the purpose of embellishment: they also add extent to the building; and afford, at the same time, a ready communication with the grounds.

The Ground Floor, I propose to be 15 feet high; the rooms and closets attached to the best rooms, only 9 feet; constructed with lighter materials, with lean-too roofs, concealed by ballustrades.

The Kitchen and Offices, although detached, have the effect of pavilion wings; but are connected with the main building; and are enclosed at the entrance by a low wall. Cellarage is constructed under the Kitchen Offices; also a lowering way for casks under the lobby.

OF

THE REBUILDING

OF

THE CHURCH OF ST. DUNSTAN IN THE EAST.

INTRODUCTION.

It is much to be regretted that accounts of the origin of our Parish Churches are in general extremely defective; and indeed, there are but few of which we are able to trace the history with any satisfactory, or even reasonable, evidence. Being at first, for the most part, private structures, and supported by private endowments, they seldom entered into the greater events of the times, or became conspicuous in public affairs, as did the more dignified Ecclesiastical foundations, the Cathedrals, the Abbeys, and others which are occasionally mentioned in History.

As towns and cities increased by the extension of their suburbs, the inhabitants residing at a distance from the center of population, were under the necessity of originating new parishes, and of erecting churches, to meet their convenience; or of less frequent resort to churches already erected; if not of wholly suspending their attendance on Divine worship, with the services rendered obligatory, as well by civil considerations, as by sacred. To this condition, equally unchristian and inconvenient, the City of London became subject by gradual accessions of settlers; and the suburbs, which progressively overflowed with population, required additional structures for the discharge of their religious duties,—structures independent of those which they had been accustomed to consider as their mother churches.

But the enlargement of the city was principally confined to certain directions; for it was impossible the suburbs should extend themselves southward, since there the river presented an effectual boundary; neither could extensive additions be made in the north, since the whole of that front, excepting Smithfield, was, in those early ages, a bog, a morass, or moor, impassable, except when frozen. The eastern and the western extremities, following the course of the River, offered more suitable situations; and it is very probable, that new streets were built upon each of them much about the same time. The Fen, in what is now Fenchurch Street, would contribute to restrict the increasing buildings on the East, to the brow of the hill bordering the Thames, with the necessary approaches to the river; and consequently, to the streets forming such approaches may be assigned a much more antient date than to those leading from thence to Cornhill and Leadenhall Street. In fact, Thames Street was closely built, several centuries before the districts lying North of it; which continued open fields, in the reign of Queen Elizabeth.

These considerations support the inference, that the Church dedicated to St. Dunstan, the history of which we are investigating, was probably the most ancient structure in the east of the Metropolis. No author has mentioned the time of its building; nor has any authentic description of its early state and character reached us. We are therefore under the necessity of adopting such approximations as may be deduced from reason and propriety; and must content ourselves with these, in the absence of satisfactory documents.

It will be recollected, as a remarkable circumstance, that the City of London contains two Churches, with their parishes, both dedicated to the same Saint: one, St. Dunstan's in the East; the other, St. Dunstan's in the West; and to these may be added, though not strictly in the City, the Church of St. Dunstan, at Stepney. This uncommon disposition to commemorate a native Saint, may apologize for the introduction of a slight sketch of his history.

Dunstan was descended from a noble family in Wessex; and was born A. D. 924, the year before King Athelstan, to whom he was related, ascended the throne. His connexions afforded him an opportunity of receiving a superior education; which he accomplished at the Abbey of Glastonbury, in Somersetshire, where he devoted himself to study with all the impetuosity of an intellect naturally vigorous, and all the determination of a resolute mind. Not contented with what was then deemed learning, he directed his attention to the Sciences, and to the Arts, in every known form: and it should appear, that he included in his researches forms not then known to the generality of Masters in the branches he studied. He was a painter, a sculptor, a chemist, a musician; and in this latter character he became famous for the self-exercising properties of his miraculous harp. The harp was then the general instrument of this country; a skilful acquaintance with it formed a necessary part of liberal education; the possession of it marked the owner a gentleman; for it was restricted by law to the gentry; and the instrument itself was singularly privileged from being taken in arrest. But Dunstan's harp was understood to surpass all others; and instead of being played on by its owner, it delighted in vibrations proper to itself; nor needed it any exciting power to render it musical, beyond the invisible undulations of the air. That the inventor of the Æolian harp should be thought by the ignorant of his day a magician, can excite no surprise; nor can any acquainted with our history be surprised at the operations of that dexterity which eventually directed to its own advantage the character of this ingenious mechanist, and afterwards conspicuous prelate. That self-interest, with the interest of the religious community which boasted of so eminent a member, was too powerful for professional integrity and truth, admits of no reasonable doubt; and hence chiefly so little that can be relied on is known, respecting the real merits and qualifications of Dunstan. The progress of knowledge in modern times completely relieves him from the imputation of having been a magician; while the more natural, and in fact, the more truly canonical and scriptural view of religious principles, consequent on the Reformation, dissipates that false brilliancy with which mistaken zeal had officiously encircled him as a Saint; and reduces him to his true estimate as a zealous ecclesiastic, and a sagacious politician.

That a young man of unquestionable abilities, a relation of the King, should be favourably received at Court, was natural; but, after a while, incurring defamation or meeting with disgust, Dunstan withdrew himself from his attendance, and became a monk. Edmund, who succeeded Athelstan in the throne, induced him to quit his retreat, and appointed him Abbot of Glastonbury, the seminary in which he had taken his education. This he converted into a Monastery of Benedictines; and he never let slip any opportunity of aggrandizing the fraternity into which he had entered. Edred, who succeeded Edmund, his brother, made him the Royal confessor, his chief confidant, and his prime minister. He was exiled by Edwy, successor of Edred; was recalled by Edgar, younger brother of Edwy, now placed on the throne, and was promoted to the Bishopric of Worcester, then to that of London, and afterwards to the Archbishopric of Canterbury; which supremacy he filled during twenty-seven years. He died May 19, 988.

The canonization of a Prelate who had laboured with all his might to promote the interests of the Papacy, by compelling the secular canons under his authority to repudiate their wives, and by enforcing the celibacy of the clergy, generally, must have been anticipated by all the adherents to that then lately established dogma of the Romish Church; and beside the gratification of national vanity in adding another to the list of British Saints already in the Calendar, it is probable, that the laity coincided the more readily in this celestial promotion, from their interest in various prophecies attributed to Dunstan; but especially in one uttered on a public and memorable occasion.

Stow informs us, that in Old St. Paul's Church, Ethelred, King of the West Saxons, was buried, and being afterwards removed, was laid next unto King Sebba (also removed, who died 677,) and this inscription was fastened on his tomb: "Here lies buried Ethelred, King of the English people, son of King Edgar; to whom in the day of his consecration,[a] after having placed the crown on his head, Saint Dunstan, then Archbishop of Canterbury, foretold the calamities which would befall him in these words:—'Whereas thou hast aspired to the Kingdom by the death 'of thy brother, in whose blood are implicated thy English subjects, together with thy most abominable mother— 'the sword shall not depart from thy house; it shall cruelly smite thee all the days of thy life; it shall slay thy children; 'insomuch that thy Kingdom shall be transferred to a foreign race, with whose customs and language the people over 'which thou rulest is unacquainted;—nor shall the crime be expiated, until after a long punishment of this thy 'sin, and the sin of thy mother, and the sins of those men who by their iniquitous counsels were parties to the deed.' Which things, thus foretold by the holy man, did really come to pass: for Ethelred, after various battles against Sweyne, King of the Danes, and his son Canute, was completely exhausted, and degraded; insomuch that being at

[a] A.D. 978.

length held close prisoner at London, he there ended his days in misery; in the year of the Incarnation of our Lord 1017, after having reigned thirty-six years in extreme trouble."[a]

If any credit be due to this inscription, the memory of Dunstan could not be otherwise than popular among the English, who naturally hated the Danish dynasty as usurpers; and this was inflamed by all the arts of the priesthood; by the machinery of speaking crucifixes, altars, and horses, with an unsparing profusion of marvels and miracles, of visions and interpositions, according to the policy and practice of the Church in the darker ages.

Thus extravagantly extolled by the clergy, and venerated extensively, if not intensely, among the laity, Dunstan easily reached the preparatory grade of Beatification; and without difficulty took his place among the Saints worthy of worship; the highest honour in the power of the Holy See to confer. As the Church rarely departed from its maxim, of allowing an interval of a full hundred years between death and canonization, the completion of Dunstan's honours may be placed in the twelfth century; and considering the paramount influence of the clergy, and of his order in particular, at that time, there is no wonder that several churches should be dedicated to his memory; two of them in the City of London, one in the East, the other in the West. It is probable, that their dates do not greatly differ; that they rose while the honours of the newly made Saint were fresh; and while the public interest attending the celebration of the usual testimonies of rejoicing consequent on a recent canonization was in full force.

St. Dunstan's in the West is supposed to be mentioned so early as A.D. 1237; but may be traced with much greater certainty, at the distance of about fifty years after that date.

St. Dunstan's in the East is marked in ancient records, as being *juxta Turrim*, "next the Tower;"[b] and therefore, probably, was the nearest parish church to that fortress: this would give it priority to "Allhallowen Berking," which was originally a chapel founded by King Richard I. about 1190. That it was a very ancient building, appears clearly from Stow's account of it, who expressly notices that circumstance; and it should seem, that some of the monuments in the church were in his time defaced, perhaps through age: the most ancient he mentions, is that of "John Kennington, Parson, buried in the quire, A.D. 1374." He says, "This Church began to be repaired in the yeare of our Lord God 1631 .... the decayes of it were many and great, and consequently the repairs: the many and great parts of it almost making up the whole." The cost was £2,400.[c] This agrees sufficiently well with the date above assigned it; and marks the probable extensive decay attendant on a building that had stood three or four hundred years.

The extent of this building, or at least of the premises annexed to it, was much beyond what might have been supposed from late appearances. It was, says Stow, "a faire and large Church, of an antient building, and within a large church-yard:" and the present preparations for rebuilding the church have laid open foundations which convince me that the whole must have occupied a very considerable space. Immense chalk and rubble walls were traced, extending in all directions, especially northwards, much beyond the bounds of the late edifice: and when Stow describes the church-yard as "large," it may be thought that he includes in his description premises then extant to the North of the Church; as the church-yard to the South is not sufficiently "large" to deserve the distinction he appears to intend.

There is still remaining in possession of the parish, a large book, saved from the fire of London, containing the Church Wardens' Accounts, from about the year 1450 to 1651. It should appear by an entry in this book, that those Accounts had been kept with great regularity from the first; and no doubt, the preceding Volume contained a complete history of the Church and its concerns: its loss, therefore, cannot be sufficiently regretted. A few extracts from this book will contribute to justify my conjectures:

P. 13. "Item. Payde for wrytyng an Engrossyng up of Rob^{t}. Byfeld's Accompt in to the gret booke, a cordyng to the old usage & custom. ijs.

This "old usage and custom" must refer much further back than ten or twelve years.

[a] *Hic jacet Ethelredus, Anglorum Rex, filius Edgari Regis, cui in die consecrationis his post impositam Coronam, fertur S. Dunstanus Cantuar. Archiepiscopus diræ prædixisse his verbis: Quoniam aspirasti ad Regnum per mortem fratris tui, in cujus sanguine conspiraverunt Angli, cum ignominiosa Matre tui: non deficiet Gladius de domo tua, sævièns in te omnibus diebus vitæ tuæ, interficiens de semine tuo, quousque Regnum tuum transferatur in Regnum alienum, cujus ritum et linguam, gens cui præsides non novit; nec expiabitur, nisi longa vindicta peccatum tuum, et peccatum Matris tuæ, et peccata virorum, qui interfuêre consilio illius nequam. Quæ sicut à viro sancto prædicta erant, evenerunt: Nam Ethelredus variis prœliis per Suanum Danorum Regem Annis 38, in magna tribulatione regnasset.*

[b] "Seynt Dunston's in the Est next the Tower of London. Hen. vj. after the Conquest, the xxxvjth."—*Church Warden's Book*, p. 97.

[c] The Contract with Alexander Moreiam, the Mason, "for the repaireinge of the Steeple and the Church and all the windowes, and for the doinge of all worke whatsoever needfull to bee donn about the Church belongeinge to the Mason," was £675.

There was an Establishment, or Brotherhood, connected with this Church: the number of its members is not mentioned (but it was, probably, twelve, as a dozen girdles for priest's Aubes are charged): for we read,

P. 7. "In the same zere Reste in the Box of our Lady Brodyrhode, As it apperith in fote of our Lady Accompte . . . "
"Item. the same zere Rest in the Box of them Brodyrhode As it apperith in the Book of thir Accompt . . ."

From these two entries, one following the other, it should seem that our Lady's Accompts were distinct from those of the Brotherhood; though probably kept by the same person; and both were distinct from those of the parish. This Brotherhood is mentioned also on another occasion, perhaps not altogether to its honour; but what was the transgression, that required a pardon from Rome, is unknown:

P. 13. Item. paide to master Willyam Notyng prish prest for that was paide for the drawin of the pdon for the brodyrhode of them, and for making of a lettyr with the same sent to master psone to Rome . . . . . ij s. iij d.

The Church contained at least two separate Chapels; a Trinity Chapel and a Lady Chapel:[a] the latter was to the North. There was also an Organ [or Organs] in the Church, and of sufficient dimensions to require an Organ blower; for, among other entries, are these:

P. 13. Item. paide to John Haddok for playing at Organs for 3 qrter of a zere, that is to say, fro mydsomer on to our Lady Day aftyr xl s. xxx s.
Item. Paide to Rob'. Scarlette for playing at the Organs fro our Lady Day till mydsomer . . . . . vj s. viij d.
—— paide to John Lawrence for blowhyng of the Organs for 3 qrs of the zere . . . . . ij s. vj d.

Nor was the musical establishment of the Church without its choir and choristers; though the number of the latter is not distinctly recorded: it was, probably, many more than four; or six. The Church had also a Clock.

P. 12. Item. Paide to Elyn the Duche woman for makyng of new Aubys & for mendyng of dyuers Aubys & for makyng of iiij Aubys for Children & for mendyng of dyuers thyngs . . . . . ij s. x d.
P. 46. Payd to John Sexton for kepyng of the Clok . . . . . xiij s. iiij d.

A Church that comprised in its establishment a Brotherhood, a large Organ, in those early days, with a Choir, and a Clock, was certainly something more than a simple Parish Church—or at least it was a Parish Church of the largest kind; and its premises were extensive in proportion. The following entries prove the existence of a Church-yard on the North:

P. 14. Item. Paid the xviij. day of Marche to Gye the Mason for the Crosse in the Chirche Yerd on the North syde of the Chirche Yerd, as by his bill apperith to xxiij s. ix d. wher of paide be the prish prest x s. And so paide be me for the rest . . . . . x s. x d.
P. 15. A clampe for the gate post on the North syde—for a bolt of yron to lokke the uppar barre of the Chirche style—item for a latche and a crampet & a bandill to the gate on the northe syde . . . . . xv d.
P. 81. for mending the wallys of bothe the Chirche yerdys with pallys (pales)
[The Church Warden's book, p. 278. mentions "the three Church-yards." A. D. 1593.]
[There were trees in the Church-yard A. D. 1488. "Payd for dressing of ij. trees[b] in the Chirche Yerd xviij d."]

A part of the Church-yard was known under the distinction of "the Pardon Church-yard;" in this many children were laid. It would be unpardonable to omit the notice taken in this curious document of the commemoration of the Patron Saint of the parish: the following entries shew the zeal and attention of the Parish Officers.

P. 12. Item. payde on Sent Dunston's evyn at Haynes in drynkyng for prests & clerks . . . . . iiij ob.
Item. paide on Sent Dunston's day for gallondys v dosen . . . . . vj d.
P. 15. Item. paide the xix day of May on Seynt Dunston's day for a gallon of Wyne whyte and clarett—for bred—for ale—and for bere—for the Ryngers . . . . . xj s.
P. 13. Paide on Seynt Fabyon & Seynt Sebastyon day our Chirch's haliday[c] for ij potell of Bastard for the syngers of the Kyng's Chapell xvj d. ob.

It does not appear that many commemorations were committed to the care of the parish: among them are,

Item. Paide to prish prest for rehersing of the names of John Martyn and Jone his wyff evry Sonday . . . . viij s. viij d.
[P. 78. The names were rehearsed "evry Sonday in the pulpete thro zere."]
Item. Paide to Syr Edward Eiys synging for Minkyn and Dame Alys Pynne fro Cristms. til the xvi. day of Januere the space of iij wekys aftyr a xl marke be zere . . . . . iij s. iij d.

[a] Allusion is made to "the three windowes in S. Anthonies Chappell," p. 457; and elsewhere to "St. Margaret's Auter." p. 47.

[b] Whether the Rooks did then as they lately did, and still do, inhabit the trees in the Church-yard, can only be conjectured. A house opposite the Church is charged with a yearly rent of *three pounds*, for the purpose of furnishing the Rooks in the trees of St. Dunstan's Church-yard with outer twigs, to enable them to build their nests without trouble; and for other sustenance. These Rooks occasionally resort to the Tower of London, where they build in the White Tower; and after the interval of some years, they return again to St. Dunstan's.

[c] In this book a distinction is made between *halyday* and *holyday*.

[The most remarkable Obit is that of Syr Bartholomew James, Knyght Alderman and some time Maior of London. It was kept November 25; and was attended by his brethren of the Corporation, to whom were given annually on their attendance, at the Church—"to the Maior vj s. viij d. to the ij Shreffs vj s. viij d. and Sword berer xx d. Also to the prish prest for the bederoll iij s. iiij d. Also to viij prests ij s. viij d. —iiij Clerkys xx d. and Sexten at Dirge and Masse and Almes to pore people vij s. viij d. Also for the belle xx d. Also for ij tapers of xvj lb. and ij candelstyks ij s. and to the saide [Church] Wardens, as apperith by the Tystamentt vj s. viij d." His will is dated November 24, 1481.

There was certainly a school for children also: but whether as choristers, or for more general purposes, is not expressed.

P. 78. Item. Paide to John Martyn the conducte for kepyng of our Lady Masse And teching chidren[a] And to kepe the quere evry Sonday and evry Obitt flest in the zere as wel thei that be no [on] halidays as holy days . . . . . ij*l*.

On the whole, we may be allowed to attribute to this Church, and its connected institutions, much more importance than has been evident of late years; and it may be justly doubted, whether the premises included might not originally extend northward to Great Tower Street, in the forms of dwellings for the Brethren, and of gardens, or walks, for their recreation.[b]

Be that as it might, and by whatever means these buildings, or properties, were alienated, it is certain, that the Fire of London, in 1666, reduced the whole to ruin; and though the Church was not entirely destroyed, as many Churches were, yet the damage done was so extensive, that in strict propriety the edifice should have been entirely rebuilt, instead of being partly rebuilt and partly repaired, as recorded on the inscription.

Tradition assigns certain remains at the back of St. Dunstan's Alley, on the North side of this Church, as the residence of the Monks; and considerable corroborative evidence was found to justify this supposition. Foundation walls of vast thickness, extending precisely in this direction, were discovered; with a porch to the Church, immediately opposite the entrance to those residences. The floor of this Porch had been bricked up five feet, and made use of as a Bone-House; but the old paving still existed, and shewed a thick Purbeck slab, worn several inches by the tread of feet, probably, those of the Brotherhood, which were in constant attendance on the performance of religious services. This porch also contained a very curious side window, having four columns, with capitals, bases, and springers, of very good workmanship; and also side benches of stone.

Considerable remains of the floor of the old Church existed, about two feet below the pavement; it was adorned with glazed and ornamented tessera; some of them very elegantly painted. Among these tessera is one in good preservation, on which is impressed from a mould, and afterwards painted in colours, the Royal Arms; or, three

[a] It is probable, that Dunstan had in some part of his life paid attention to the promotion of learning in others, as well as in himself; and perhaps had been personally engaged in tuition; for, it is remarkable, that in the portrait of him, from a very laboured original, a MS. of the twelfth century, given by Mr. Strutt, in his "Dresses and Habits of the People of England," Plate L. the Archbishop, in his full robes, is represented writing—not a treatise on Divinity or Ecclesiastical History—but a book of instruction for youth, inscribed on the opened pages, OBSCVLTA [ÆCSCVLTA] O FILI PRECEPTA MAGISTRI; *Hear, O my son, the precepts of thy Master.* A humble subject, this, for a Primate.

[b] *Memoranda relating to the Expenses of Building, copied from the Church Warden's book; from which the Architect may draw some comparison of the Expense of erecting such an Edifice as Henry the VIIth's Chapel.*

A. D. 1505. 20 Year of Henry viith.

Firste. Paide to Byrde Carpenter for Tymbyr and Workmanship of alle the newe howse the hole frame £4. 0. 0
Item. for a Mason to make the fundacion for the drawth And the walle that we brakke on the Est syde for vij Days at viij d. a Day.
Item. for a Laborer to serve hym vij Days, v d. a Day.
Item. for ij M. iij C. Breks the M. xs.
Item. for a Tyler iij Days for viij d. a Day.
Item. for a Dawber * for viij Days viij d. a Day.
Item. for iiij Lode of Sonde the Lode v d.
Item. for vj Lodys of Lome the Lode iiij d.
Item. for xj Lode of Lyme the Lode xij d.
Item. paide to the Plumer A dam for the halfe Gutter of Lede weying 1 Cwt. and a quart. of a ℔. the price of the Cwt. vj s.
Item. for iiij Peyr white henges weying xxiij ℔. price ℔. ob. d.
Item. for a Peyr of biak hengys weying xv ℔. price ℔. 1½.
Item. for iij Lokkys with Keys and Stap.ys ij s. vj d.
Item. for v Boltis with Hapses and Staplys xx d.
Item. for a Ryng for the Dore iiij d.
Item. paide to a Mason and a Marbeler to amende in our Lady Chapelle and odyr Places of the Chirche iij s. viij d.
Item. for 6 fote of Cane Stone, price the fote vj d.
Item. payde to the Pavers for pavying of xxv. Tesse at vij d. xiv s. vij d.
(These, I suppose, are the painted and glazed Tessera the floor of the Church was composed of; if so, the price must have been very considerable.)

* Dawber, is supposed to mean a plasterer.

lions passant or, on a ground gules. They resemble those on the antient Custom-House Seal, given in page 30. Most of the other devices are greatly injured. The intermediate space is composed of fragments of walls, charcoal, ashes, lead, and in fact it exhibits every appearance of the rubbish left by a destructive conflagration.

The other antiquities which have been discovered in pulling down the Church, are inconsiderable. In the East end, the fragments of a large decorated window[a] of about the age of Henry the Sixth, or Edward the Fourth, were found: it was in a very decayed and mutilated state; and had been filled up with brick-work, and plastered over, in some subsequent repair. Immediately under it to the South, in the interior, were the remains of a very beautiful Piscina, carved in a block of Purbec marble; but the tracery and canopy had been in a great measure destroyed; probably by the plasterer, to produce a flat surface. In a similar situation, on the North side of the window, was a small arched freestone recess, perhaps answering the purposes of a Tabernacle, as might be conjectured from the remains of hinges: but no other traces of its use were observable.

In the wall on the East end of the North Aisle, were two Piscinæ, of freestone; but so much injured, that it was barely possible to discover their form. In a small porch at the North East, was another Piscina, of freestone, in good condition; and a small window with a cinquefoil head and transom; all of about the same date.

In the middle of the South wall, and immediately against one of the buttresses, were the remains of a flat arched door-way, leading from the interior of the Church; and over it an opening of a very singular construction, extremely narrow in proportion to its height; the ascent to which was in the thickness of the wall. This possibly might have been the situation of the pulpit: I know of no other purpose to which it could be appropriated.

The superintendence of the repairs, in common with most other Churches in the City, was committed to Sir Christopher Wren, who has left us, in the tower and spire, a fine specimen of his taste as an architect, and his skill as a mechanist. The general outline of this Composition is grand, simple, and beautiful; still it is much to be regretted, that he did not pay more attention to the detail and ornament; in this respect its prototype, Saint Nicholas at Newcastle, is as much its superior, as Saint Dunstan's excels in harmony of outline.[b] This tower was erected by Sir Christopher in 1698.

The repairs of this period were, the rebuilding the columns and arches internally; rebuilding the West wall of the South aisle; casing the walls of the porches, and erecting the porches on the South side; besides all the interior accommodations.[c] The piety of Lady Williamson, of Hales Hall, in Norfolk, contributed essentially to the restoration of the fabric: her benefactions amounted to the sum of £4,000.

[a] This Window is shewn restored in the Views; great care has been taken in measuring the fragments, so that it is the exact repetition of its predecessor.

[b] The comparative View of the two Edifices, as given by Mr. Carter, is as follows:—

St. Dunstan's.	*St. Nicholas.*
Width of Tower, 20 feet, proportionable height.	Width of Tower, 20 feet, proportionable height.
Three Stories to the Battlements of the Tower.	Five Stories to the Battlements of the Tower.
Door-way to first Story, and one Window to each front of second and third Story.	Door-way to first Story, and one Window to each front of second, third, and fourth Story; to the fifth Story, two Windows.
Abutting or flying Arches of plain masonry on the summit of the Tower, without mouldings or ornament.	Flying or intersecting Ribs on the summit of the Tower, replete with mouldings and corresponding ornaments.
These Arches bearing on their centre an Obelisk perforated in its base.	These Ribs bearing on their center an efficient perforated Lantern and Spire.
Obelisk Pedestals, great and small, at the angles and centre of each front of the Tower.	Characteristic Pinnacles, great and small, at the angles and centre of each front of the Tower, with Battlements, demi ditto, crockets, and terminating vanes: Pinnacles to the lantern with crockets; Spire with crockets; and a Vane, with eight small buttress flying Arches, for the support and embellishment of the several Pinnacles.

Gent. Mag. Vol. vi. 334.

[c] *Inscription over the South Porch and N. Bone House of the late St. Dunstan's Church.*

This Church and Steeple
after the Dreadful Conflagration
Anno Dom: 1666, ware Reedified and
Repaired, Anno Dom: 1667, 1668, 1669—
Thomas Littell and Thomas Norman
and John Hewit
Richard Meynell } Church Wardens.
Michael Clipsham }

From the injury the walls must have received from the fire, and the insufficient manner in which the subsequent repairs[a] were conducted, decay soon shewed itself. It was found, in 1810, that from a defect in the carpentry the nave roof had thrust the wall as much as seven inches out of the perpendicular: this was partially remedied by the introduction of iron ties; but increasing decays induced the Committee of the Parish, in 1817, to order a minute survey of the whole; when it was determined to take off all the roofs, and to rebuild the nave walls from the tops of the arches.

On taking off the side roofs, the lamentable state of decay visible in all the walls rendered them totally unfit for the reception of new roofs. The Committee then directed me to furnish them with Designs for a new Gothic Church, to agree in style and character with the steeple and tower; and, after much discussion, the present Designs were adopted. The object has been to preserve consistency and correctness of style, with chastity of ornament. One most material inconvenience under which the Architect laboured, was the obligation to build on the old foundations: particularly when it is observed, that all the angles of the former Church were irregular: in the new Church, however, by taking advantage of the spread of the footings, these difficulties have been surmounted, and the plan is perfectly rectangular.

It was at first proposed to adopt brickwork faced with stucco, but at my earnest recommendation, the Committee were prevailed on to relinquish that idea: they then turned their attention to Bath Stone, as being apparently much cheaper than that obtained from the Isle of Portland; and they required my opinion of it. Of this stone I had not had any practical experience, and therefore could give no decision on its strength or durability. They consequently instructed me to proceed to Bath, to ascertain precisely its qualities.

From an attentive examination of the buildings and quarries at Bath, and from calculations of the expense, the difference was found too trifling to deserve consideration; and the material did not appear, in my opinion, so satisfactory as Portland Stone.

I represented these circumstances to the Committee, and Portland Stone was consequently adopted. In compliance with this determination, the former structure has been entirely taken down, (with the exception of the Tower and Steeple, erected by Sir Christopher Wren, as already stated) and the whole is in progress of being raised anew, from the foundations.

The first stone of the new Building was laid on Wednesday, November 26, 1817, at the North East corner; by His Grace the Archbishop of Canterbury, who is Patron of the Church; it being one of his peculiars, in the City of London.[b] Every thing having been previously arranged, His Grace, about eleven o'clock in the forenoon, proceeded to the platform erected on this occasion, on the site of the former Edifice, attended by the Rev. Mr. Hesketh, the Rector; by the Churchwardens, the Committee appointed to superintend the Building, the Architect, and a number of Gentlemen, parishioners. Having deposited, in the stone prepared for this purpose, a number of the present coins of the realm, an appropriate prayer was offered up to the Almighty, imploring his blessing on the Church about to be erected for his worship; and the stone was subsequently lowered into its place. The ceremony was concluded by a joyful peal from the bells in the old Spire.

It may be observed, that this is, in all probability, the first time of a ceremony so impressive being performed here on such an occasion, by an Archbishop; for the restoration of the former Edifice, after the Fire of London, was rather considered as a reparation than as a rebuilding, the Church not having been wholly destroyed; and therefore no such ceremony was requisite. As to the original foundation, when the parish was first formed, not only is there no evidence as to what rites might have been used; but, as at that time the establishment vested in the Prior and Chapter of Canterbury, and not the Archbishop, it may be taken as certain, that the Archbishop was not present on that occasion; or, if present at all, assuredly not in the character of Patron.

[a] The old walls were entirely composed of chalk rubble work: the erections of Sir C. Wren were principally formed of the remains of the old Church; fragments of mullions, tracery, ribs, roses, grave stones, and monuments, were the heterogeneous materials employed.

[b] St. Dunstan's is a Rectory, one of the thirteen peculiars in the City of London, belonging to the See of Canterbury. It was originally in the gift of the Prior and Chapter of Christ Church, Canterbury; but was granted by them (with Allhallows, Bread Street, and St. Pancras, Soper Lane) in 1365, to Simon Islip, then Archbishop; and to his successors for ever. The parish of Allhallows Barking appears to have been originally part of St. Dunstan's parish.

PLATE LIV.

Plan of the new Church of St. Dunstan in the East.

This plan, as already noticed, was with the greatest difficulty reduced to a rectangular form; and only by taking all possible advantage of the spread of the footings of the foundation of the ancient Church; not a single angle of which was accurate. The East end was not only oblique in its bearing, with respect to the other parts; but it was considerably narrower than the West end; and consequently, the body of the Church, with the cieling and its ornaments, was visibly incorrect. Beside this, the pillars which separated the body of the Church from the aisles, were placed at irregular intervals; no two of them being alike, but towards the East, where the Church was narrowest, increasing in distance to an interval nearly double that in the West.

This Plan shews the dimensions of the Edifice, the situation of the columns, the buttresses, the staircases, &c. with the general distribution of the whole.

PLATE LV.

Section of the Church, looking South.

This Plate describes the internal construction and arrangement of the parts; the elevation of the Altar, with the modest decoration thought proper to be adopted in this part of the Church, &c.

PLATE LVI.

South-East View of the Church.

This View exhibits the external appearance of the Church, as intended; also its connexion with the old Tower and Spire, and the general effect of the structure. It will be observed, that the great East Window, seen in this view, is a repetition of the ancient one, which occupied the same situation in the former Building. With this window those in the aisles correspond; and the whole is composed with a prevailing reference to the character annexed to the original structure, as determined from the investigation already presented.

PLATE LVII.

View of the Interior.

This Design is intended to shew the effect of the Interior, when finished. The general whole is adapted to the convenience of modern Worship; as well as the parts are designed to preserve that harmony of appearance, which is a most essential requisite in such a building. The ancient Architects were not under the necessity of providing against the effect of pews;* which, by concealing the bases of columns, and other ornamental supports, prevent the eye of a spectator from contemplating to advantage the entire intention of an Artist in the composition of modern Churches. The interior of the East Window is seen in this View.

* The first "pewes" to the ancient Church appear to have been put up in the year 1497, the 12th of Henry VII. at the cost of £15. 10s.

CURSORY HINTS
ON
PLANTING, ASPECT, SOIL, DRY ROT, &c.

Good taste and practical knowledge will study the best disposition of the ground attached to a Residence, by determining its forms and distribution, according to the nature, character, and magnitude of the edifice intended: and will contrive and distribute to the greatest advantage the devious paths, the broader walks, the beds, the clumps, the hillocks, the falls, and other embellishments afforded to Architecture by Landscape Gardening. By the character they impart, these varieties contribute to distinguish and adorn the Cottage, the Villa, or the Mansion, with appropriate beauty; while the happy application of the Art discovers and adopts the proper means to combine these new parts with the natural features of the surrounding country; and to blend them into one harmonious whole, by judicious introduction of fore-grounds to the views obtained, whether nearer or more remote, as we tread the well-mown lawn, or range through luxuriant plantations.

It must be obvious to every reflecting mind, that this combination requires the most extensive foresight and judgment; not only as to what appears at the present moment to be within the power of Art, but also as to what opportunities of further improvement may be expected. Hence it is necessary to become acquainted with disagreeable as well as agreeable objects, and to determine after much consideration, the most advisable means of excluding them; and, as it were, banishing the very recollection of them from the domain, whether they properly form part of it, or belong to adjacent premises. In the endeavour to take advantage of whatever is pleasing, or may be rendered so by good management, it should always be remembered, that the first appearance of grounds or plantations is not the guide of judicious practitioners, but the probable effect of their labours at a future time. And here I must take the liberty of reminding the Landscape Gardener, that it is in his power to suit his shrubs, trees, &c. to the House, by judicious selection; but it is not in the power of the Architect to suit his House to shrubs and trees;—and moreover, that in proportion as these accompaniments grow tall and large, they become a kind of scale to the dimensions of the House, and rival that which should always continue the principal object. Hence, occasionally, result a number of evident improprieties; not to say an entire annihilation of the principles on which the general composition was originally formed.

The aspect or position, the prospect or view from the site, and the approach, exercise no small control over the arrangement, distribution, and construction of a good Plan for the Edifice; consequently, no design should be ventured on, much less should it be adopted, till after all these important circumstances have been maturely considered, in every bearing. It is therefore the incumbent duty of the Architect, and equally advantageous to his employer, as obligatory on himself, to become personally acquainted with all these, and with every other local and peculiar advantage or disadvantage, before he commences his design. To be sparing of trouble, or parsimonious of expense, is to relinquish the opportunity of doing justice to his art, to his character, to his employer, and to all the *capabilities* connected with the undertaking.

Convenience must, no doubt, direct the nature of the approach to a Residence; in general, it should not be too sudden, or too short; on the other hand, it should never be tedious, or prolonged into a trial of patience. But, whatever be the importance of the approach to a House, that of the aspect is much greater. And this includes not merely the properties of the soil, the water, and exposure to the Sun, but also the prevailing directions and powers of the Wind; with the probability of its being more or less salubrious, according to the districts over which it blows. For this reason I have, as already noticed, directed the entrances and the fronts of Mr. Macculloch's house at Guernsey, not as the same would, most likely, have been placed, had the Mansion been erected far inland; but, according to the best estimate that could be formed, of what was most suitable to that exposed situation. This is often too little understood; although a neglect of it may eventually prove of great importance to a family. Health is an object never to be overlooked; nor is the pleasure of a fine prospect, however tempting, to be allowed to prevail against a consideration of such magnitude. In short, the study of the Architect should be directed in our Northern latitudes, to the attainment of as much mild and agreeable temperature as possible, in Spring, Summer, and Autumn; as to the severities of Winter, he should think of them only for the purpose of repelling their power, and counteracting their consequences.

Our dwellings indubitably constitute a principal object among the chief comforts of social life; and those who can best appreciate its blessings, are best qualified to judge of their value in the list of domestic enjoyments. It is at home we taste the sweets of repose after fatigue; or the delights of confidential and amicable intercourse. The harmony of domestic life, the enjoyment of every happiness incident to humanity, centers in the bosom of our families; and these blessings are heightened by the consciousness of that security of person and property which crowns the felicities of our *Castella Britannica*.

But, though secure from external violence, we are vulnerable to the attack of a silent and insidious foe;—the Dry-Rot, with its concomitant evils,—which too frequently pervades the noblest pile. In consequence of this disease, a premature decay makes an alarming progress, and heavy expenses must be incurred before it can be eradicated; this destructive pest frequently arises from the insufficiency and bad quality of the materials, or from the depredations of certain small insects; or, sometimes, from *miasma*; and, at other times, from the moisture and damps not having been duly exhaled from the walls; or, it is occasioned by humid and deleterious vapours; which being accumulated and deposited on the wood, when placed in unfavourable situations, and in stagnant air, produce fermentation and vegetation, and by their agency corrode the timbers of a Building. It is to be observed, that the wood which most abounds with sap is most quickly decomposed. A proper attention to soil, aspect, and materials, will generally prevent these fatal results, so injurious to the interest of the Proprietor, and so prejudicial to the reputation of the Architect.

I have had frequent opportunities of witnessing the ravages of this disease in Timber Works; and of remedying the evil. At the house of a Nobleman in Grosvenor Square, I had occasion to shoar up the whole; and to take down and rebuild the basement walls throughout. In each pier were inserted two shoars, which had become entirely decayed; and by their corruption and insufficiency endangered the whole fabric. The truth was, it had been originally built of bad materials; both of brick and timber: there was, therefore, no wonder that they decayed, and that the House was ready to fall: the wonder rather was, that it had stood so long.

It yet remains a *desideratum* to establish a specific for this evil; for the more the subject is investigated by chemical analysis, the greater difficulties appear to be connected with it. There are many species of Dry-Rot; and an hypothesis may be adduced for each; but their effects are nearly similar, varying only in degree of activity. Much dependence has been placed on painting,[a] to prevent these effects.

It is difficult to determine from the appearance of timber before it is used, whether it will become subject to this most destructive disease; but I think it beyond question, that timber injudiciously felled, or used in too green a state, or too soon after it has been felled, must be considered as extremely hazardous; neither are the best looking beams the most worthy of confidence. It is an evil that affects the most substantial timbers equally with the slender; and perhaps, more readily. In these, too, it prevails long before its presence is suspected; and by the time it is detected, all hopes of cure are vain. As this subject is of infinite moment to the nation, and as it occupies the inquiries of many intelligent men, we may yet hope that some preservative, or some effectual remedy for it may be discovered.[b] To provide against that species which originates in internal causes, I have made a point of the most careful selection of timber; and of inquiring the particulars of growth, felling, length of time since the falling, and exposure to the alternations of weather and seasons; while to prevent, if possible, the destructive operation of external causes, I have directed that all important timbers, and especially all suspicious places in those timbers, be carefully and thoroughly charred; and that—as in the roof of the Custom-House—a constant stream of warm and fresh air should be introduced, for the purpose of effectually carrying off all prejudicial effluvia.

[a] To paint the surface of the wood contributes to prevent the exudation of the sap from the inside. To char or oxydate the surface, is a very effectual preservative; as by this operation the sap, which is in fact the *pabulum* of the disease, will be dissolved, and will take a new modification.

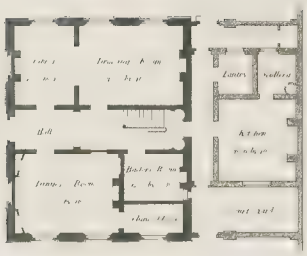
[b] The same causes have been in operation on the Continent, and on the timber used prematurely for the construction of ships during the late war. When the French came to take possession of the number of ships that was allotted to them from the Dock Yard at Antwerp, more than half were found not worth carrying away, so strongly were they infected with the Dry-Rot—even those that were on the stocks at the time, and not finished.

THE END.

ERRATA.—Description of the Custom-House, P. 9, last line, last word, *for* WEST *read* EAST.——P. 10, line 3, first word, *for* EAST *read* WEST.

Bradley and Sons, Bolt Court, Fleet Street

Villa Lavender Hill Surrey

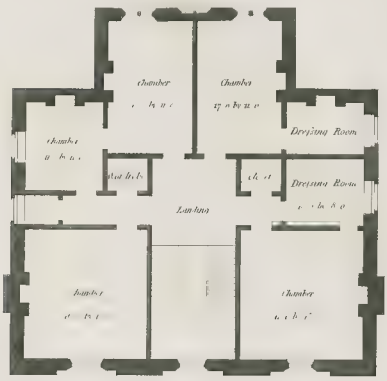


Ground Floor Plan

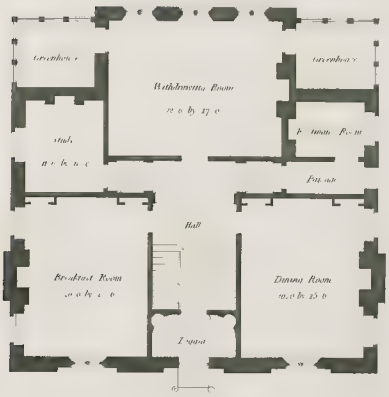
Chamber Floor Plan

London Published June 1st 1809 by J Taylor High Holborn

Villa intended for Mr. Maccullock, Guernsey



Plan of Chamber Floor

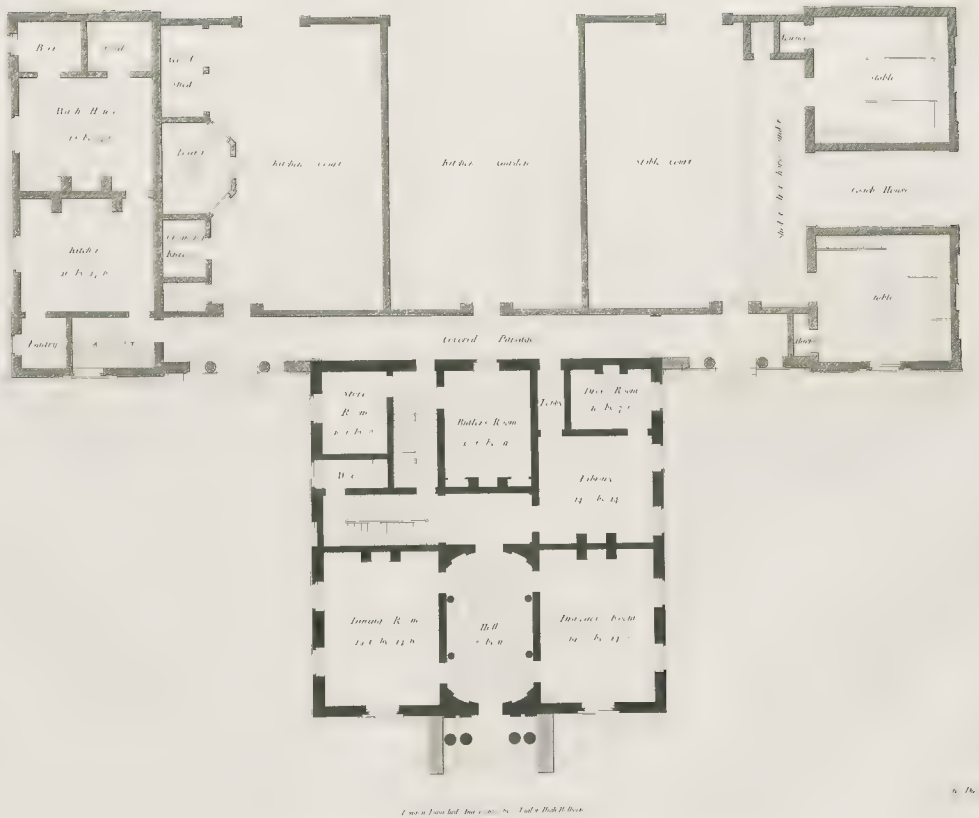


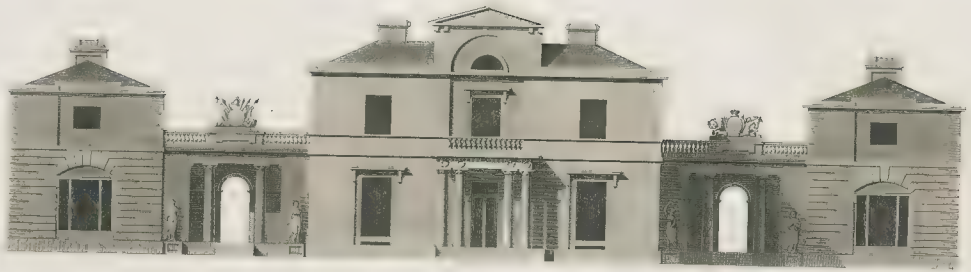
Ground Floor

London Published Aug.st 1812 by J. Taylor High Holborn

Villa intended for Mr. Uaccullock Guernsey

Plan of a Cottage for Edward Pellew Clough Esq.r Barmouth Merionethshire



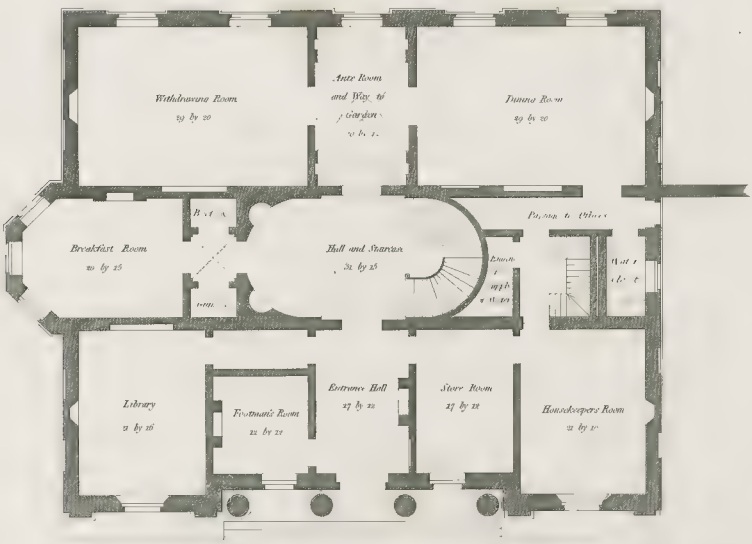


Villa erected for L. Pitlurgh Esqr. Brunswick Germany

London Published Jan 1. 1820 by J. Taylor High Holborn

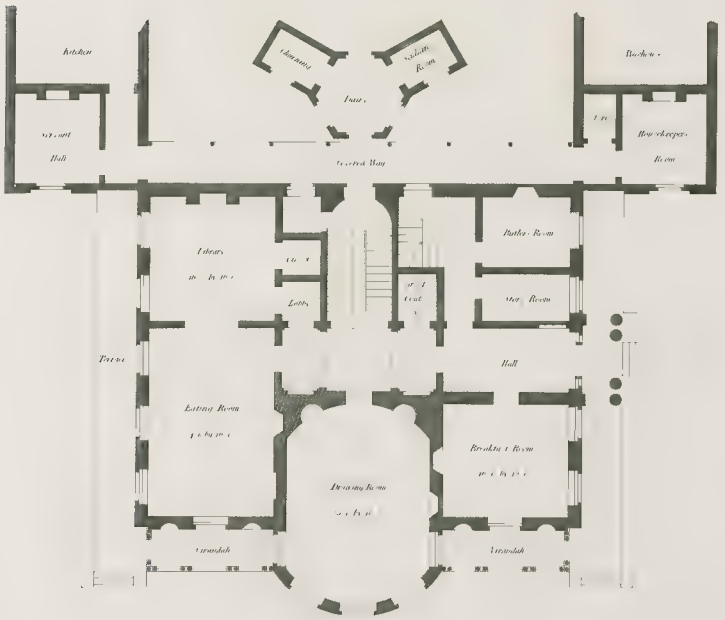
Le Keux sculp

House erected for Gen.l Taylor in Ireland.

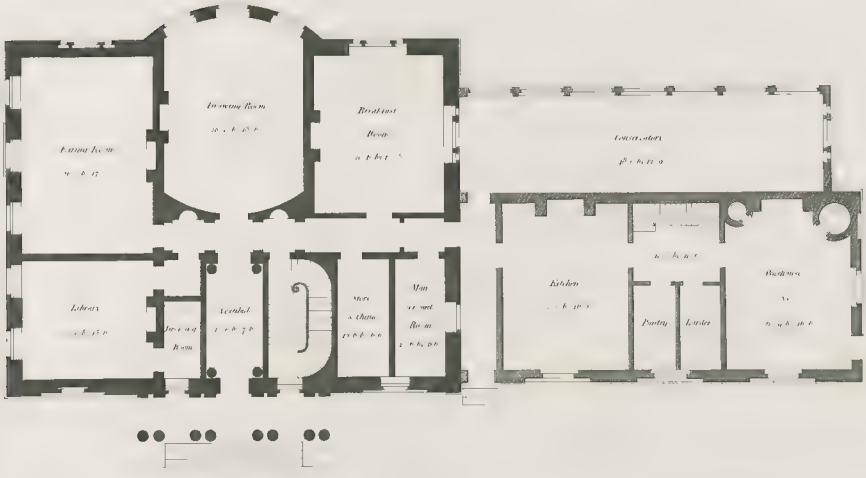


James Dal to ... 1p

Villa at Coley Park, near Reading, Berks



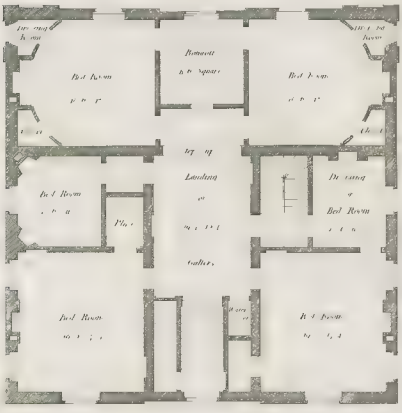
Villa erected at Jersey for J. Emery Esq.



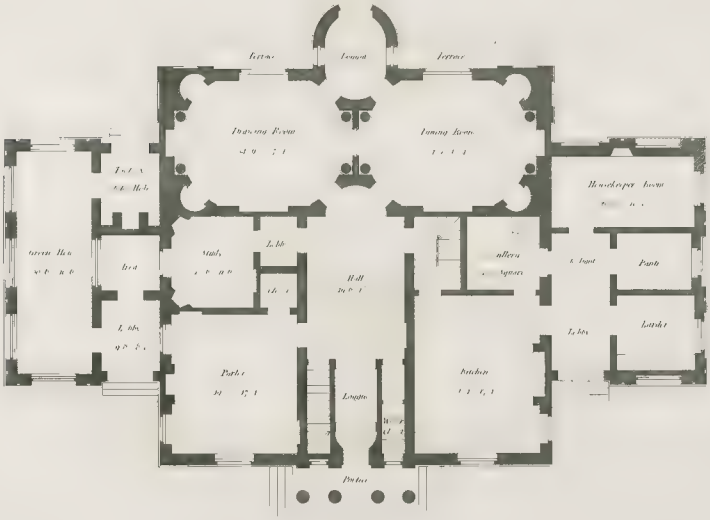
Plans of a Villa, designed for the late Stephen Jervier Esq^r

PLATE X.

Terrace



Chamber Plan



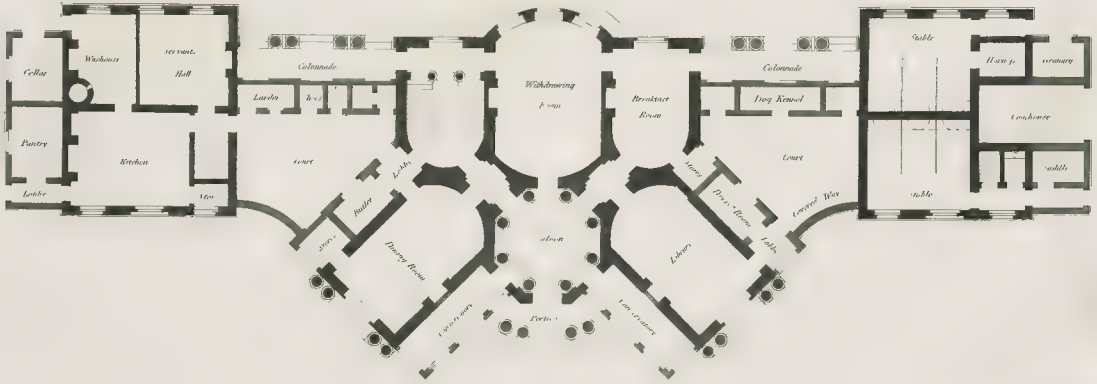
Ground Plan

Elevation of a Villa, designed for the late Stephen Teſpuër Esq^r

Pubᵈ by J. & A. Arch Holborn

Villa intended to be erected on the Thames

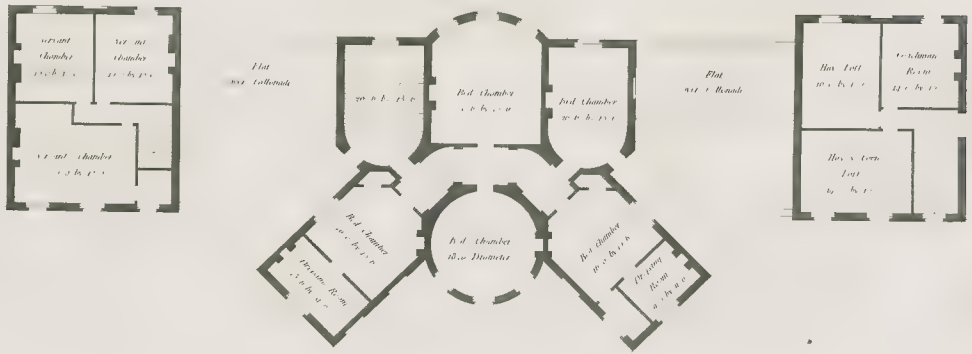
Plan of the Ground Floor



Jno. Lewis sculp.

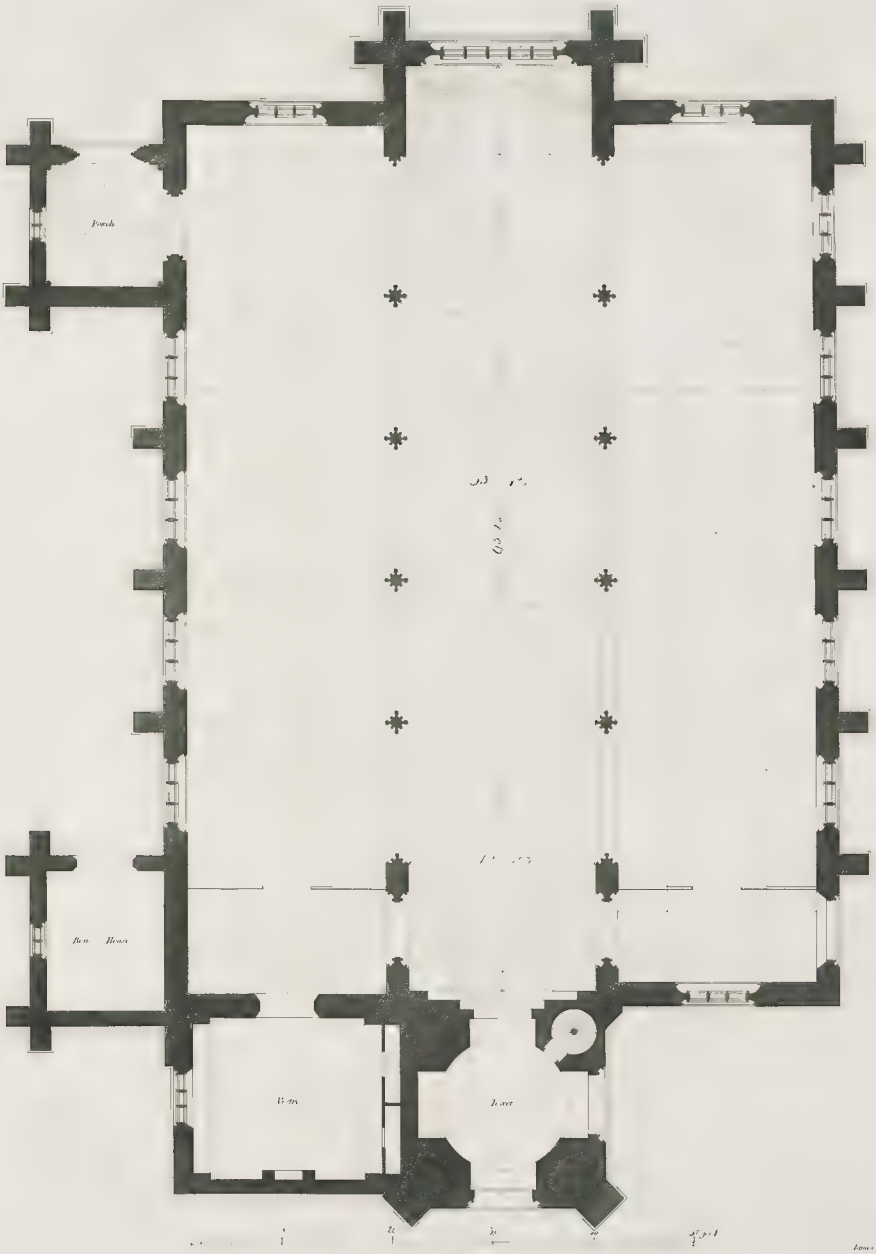
Published June 1st 1808 by J. Taylor High Holborn

Villa intended to be erected in South Wales



Plan of the Church of St. Dunstan in the East

PLATE 54



London Published [illegible] by I. Taylor High Holborn

Section from East to West of St. Dunstan in the East

South East View of the Church of St. Dunstan in the East

Interior View of St. Dunstan in the East.

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